ABSTRACT
        The Consortium of Southern Colleges for Teacher
Education is a group of 10 "developing" colleges that assist each
other in the development of performance-based teacher education
programs. This document, which is the final report of a research
project, studies each of the consortium's goals, which are a) to
design, develop, implement, and evaluate competency-based teacher
education programs at consortium schools; b) to design, develop,
implement, and evaluate improved consortium organizations and
services; c) to develop program sites for demonstration to consortium
members and limited others; and d) to compare modular trained teacher
education students with traditionally trained teacher education
students. A summary, conclusions, and recommendations follow each
goal study. Also included are appendixes, an 18-item bibliography,
and a third-party evaluation of the 1972-73 consortium project on the
development and effectiveness of competency-based teacher education
in emerging schools. (PD)

FINAL REPORT

PROJECT NO. RO 20131
CONTRACT NO. OEG 0720778

DEVELOPMENT AND EFFECTIVENESS OF COMPETENCY BASED

TEACHER EDUCATION PROGRAMS IN EMERGING INSTITUTIONS

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opinions stated do not, therefore, necessarily represent official
Office of Education position or policy.

U. S. DEPARTMENT OF
HEALTH, EDUCATION AND WELFARE

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FOREWORD

Acknowledgements for the work in this report are due to many persons who provided assistance in the development and implementation of the project. Dr. Donald Cruickshank, Ohio State University, was most helpful in planning the project. He also completed the third party evaluation of the project. We would like to thank Sister Jean Lynch of Xavier University for conducting the research at that school. Dr. Rhoda Collins, Pembroke State University, conducted the research in social studies at that institution. Dr. Edwin W. Crain, Pembroke State University, conducted the research in elementary physical education at that institution. We would also like to thank Dr. Collins for analyzing all of the tapes in the project. Dr. J. Kenneth Orso, Alabama State Department of Education, trained the faculties of the colleges in the skills of teaching and supervised the taping on video-tape of the skills for the software for the modules. We would like to thank Mr. Percy Marks of Selma, Alabama, for his help in making the video tapes for the modules.

Special thanks are due to Dr. Dave Berliner of the Far Western Educational Laboratory, Sister Jean Lynch of Xavier University, Dr. Gene Hall of the Texas R & D Center for Teacher Education, and Dr. Muhammed Nawaz, Livingston University, for their assistance in designing the research project.

We would like to express our appreciation to Dr. C. James Dyer, Director of the Consortium, for his support and assistance in the project. Dr. Norman C. Johnson was most helpful as he served as Chairman of the Board of Directors and provided guidance and assistance. Mrs. Martha Knight of the Consortium Office was also very helpful. We would like to express our appreciation to Dr. Erby C. Fischer who worked with us on nearly every facet of the project. Most of all, we would like to thank that loyal band of project directors at each of the Consortium schools for all of their efforts and their cooperation and support. They are the people who made this report possible.

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INTRODUCTION

The problems that are encountered by twentieth century society
require institutions that can find solutions to those problems. Many
of the problems have had their roots traced to the inability of the
society to adapt to the conditions that appear to have engulfed modern
man. One of the principal problems facing men is the rise of technology.
Technology is increasing at an ever accelerating rate and the predic-
tions for this technology seem to indicate that the development will
not cease. The technology creates change in the conditions of man and
appears to be altering not only life styles but to be permeating and
transforming the personalities of whole societies. As the technology
increases, so does the impetus for change. It is important that schools
and children learn to utilize the developments inherent in the technol-
ogy and to cope with the alterations in life styles and personality that
the technology dictates.

In addition to the technology, the knowledge explosion also con-
tinues to be a problem with which modern man must cope. Knowledge tends
to increase because of the technology and the increase in knowledge calls
for greater use of the technology. Modern man can expect that the knowl-
edge explosion will continue, and schools must learn to adapt to the
increasing accumulation of knowledge. Schools must teach children in
such a manner that they can utilize knowledge to their advantage and
not become fearful of that knowledge. Schools must find ways to assist
in dealing with the ever increasing amounts of knowledge. Continuing

reliance on a system that deals with memorization of facts that continue to accumulate only serves to increase man's alienation and his inability to deal with the problems that he faces.

The rise of technology also is contributing to the accumulation of vast urban areas that will continue to increase in size. The movement of persons from rural areas to the urban areas also contributes to the alienation of the masses as well as confounding the efforts of the cities to handle the problems associated with very rapid increases in size. The decline of the inner cities is evidence of the continual move from the inner city to the suburbs by those elements of the city that could assist in providing resources, both financial and intellectual, in alleviating the decline. The movement to the urban areas has been continuing since the inception of the rise of technology and we can be sure that the influx of persons to the cities will continue. Modern society must find ways of handling this influx and of assisting the cities in finding solutions to the problems that the influx is causing.

The changes in society, i.e. the rise of technology, the knowledge explosion, and increasing urbanization, call for changes in education in order that children may find ways to adapt to the changes they are presently facing as well as to the saltatory changes that the continual increases will provide in the 1980's and beyond. Schools have been notorious in their inability to adapt to changing conditions. It has been said that innovations in schools take about fifty years to come about. In a time of saltatory change, this type of lag, be it cultural or otherwise, cannot be tolerated. Teachers must find ways to assist children to handle the problems that they will face in the latter part of this century and the first part of the next century. Continual

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reliance on the types of education that were accepted by our grandparents is simply not acceptable today. Ways must be found to encourage schools to innovate and to find ways that children can deal with the problems that they will face. This calls for relevance in education with regard to these problems listed above. Teachers must be made aware of the problems and with newer research efforts be shown how to adapt and innovate in order that schools will not attempt to make every child the same by using outdated devices and materials that are unrelated to the modern world.

While the technology has provided the world with problems, it has also provided some of the solutions to those problems by providing new approaches to thinking and problem solving that can be utilized by teachers in providing ways of showing boys and girls how to cope with those problems. These new approaches to thinking can be brought into the educational framework of teachers so that they can begin to teach as they are "taught to teach," rather than teaching in the same manner as they were taught years before. In order to accomplish this, it is necessary that colleges and universities incorporate the newer approaches in the education of teachers.

It has been because of the failure of higher education to provide teachers with the skills to assist children to adapt to the problems that higher education has come under criticism in recent years. B. O. Smith, in speaking to the issues of repair, reform or revolution in higher education says the following:

> This work calls for change in education generally, and spe-
> cifically, for changes in training persons to be teachers.

There is lamentably little recognition of the crisis in
education. There is smugness where there should be con-
cern; complaining "jams" the few voices urging true inno-
vation and change. The moderate and the mild control
the destiny of education. They have deluded themselves
that blunted emotions signify maturity. They desire
change but the change is only some modest tinkering.
They wish to repair the system by replacing worn-out
parts. In training teachers to work with the disadvan-
taged they may add a course or two, or bring to the
faculty a person who claims expertness in this area. All
too often the instructional program reinforces the notion
of cultural deprivation and as such may be a negative
rather than a positive influence on the teacher.
    Education is beyond repair! What is needed is radical
reform. This reform is to include the nature of the
schooling process, the systems which control educational
policy, and the institutions which prepare persons to be
teachers.[1]

It was concern with these problems and with other aspects of educa-

tion that prompted the U. S. Office of Education to issue a call for

proposals in October 1967, for "Educational Specifications for a

Comprehensive Undergraduate and Inservice Teacher Education Program

for Elementary Teachers." Elementary was defined as preschool, primary

and intermediate ages. The projects were to utilize the systems analysis

approach in the development of the specifications and were to develop

alternate models for the implementation of the models. The institutions

which were to submit proposals must prepare at least 100 elementary

teachers a year. Eighty proposals were received and nine were selected

to be funded at the rate of one and one-half million dollars.[2] The

project as conceived by the U. S. Office of Education, was to be in three

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[1] B. O. Smith, et al., Teachers for the Real World (Washington: The
American Association of Colleges for Teacher Education, 1968), p. 9.

[2] A. John Stauffer and Therry N. Deal, "Preface," Journal of Re-
search and Development in Education, Number 3, Volume 2 (Spring, 1969,
Athens, Georgia).

phases. Phase 1 was to be the development of the specifications, Phase II was to involve feasibility studies to determine the cost of the development and implementation, and Phase III was to implement the specifications. The nine schools that were selected to participate in Phase I were Florida State University, The University of Massachusetts, Michigan State University, The Northwest Regional Educational Laboratory, The University of Pittsburgh, Syracuse University, The University of Georgia, Teachers College (Columbia University), and The University of Toledo. The University of Wisconsin submitted a proposal which was not funded and decided to develop a model at their own expense. The University of Wisconsin was to be included in Phase II.

The original specifications were completed in 1968 and became known as "The Elementary Models." The second phase of the project was initiated which was to deal with the cost of the development and implementation of the models. The feasibility studies were completed and the cost was computed to be rather high. A later committee was established to project the cost of these projects and the results were published by Benjamin Rosner in The Power of Competency Based Teacher Education. The costs as revealed in this book were as follows:

FIVE YEAR PROGRAM DEVELOPMENT PLAN[3]
(Dollars in Millions)

Program Planning and Coordination	1.5
Training Laboratories	75.0
Instructional Materials	19.0
Instruments	5.5
Career Development	13.0
TOTAL	114.0

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[3]Benjamin Rosner, The Power of Competency Based Teacher Education (Boston: Allyn and Bacon, 1972).

Development of the Consortium
of Southern Colleges

Shortly after the appearance of the original models, the U. S.
Office of Education was interested to see what would happen if some
small institutions with limited financial and human resources were pro-
vided the opportunity to study the models and encouraged to develop and
improve their teacher education programs. Ten institutions were select-
ed from nine southern states. Each of the institutions had been de-
clared a "developing" institution by the U. S. Office and each institu-
tion had expressed an interest in improving its teacher education
program. The institutions banded together voluntarily to establish a
consortium in order that they might assist each other in the development
of performance based or competency based teacher education. Each insti-
tution voluntarily took some of the funds given to the school to estab-
lish a central office of the consortium and the group named itself The
Consortium of Southern Colleges for Teacher Education.

The evolution of the Consortium has been traced as follows:

The Consortium of Southern Colleges for Teacher Education
is a group of ten small colleges who have a mutual interest
in the development of model prototypes of performance-based
teacher education programs. These schools have an average
enrollment of less than 3,000 students and are predominantly
black. The interest of this group developed as a result of
an invitation to each school to engage in similar limited
research into the usability of all or parts of the U. S. O.
E. Teacher Education Project, Phase I, Model Elementary
Programs. The initial study was carried out with a high
level of success during the 1969-1970 school year. Two
conferences involving the model builders, the teacher edu-
cation staffs of consortium members, U.S.O.E. personnel,
and other selected consultants and speakers highlighted
the year's study. Extended travel of on-site visits to
the schools directly associated with the model builders
during that year, gave added perspective and insight into

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the probable usefulness of ideas found in the model ele-
mentary programs. At the end of the year's study the ten
small schools decided to pool findings, efforts, problems
and solutions and the Consortium came into being.[4]

The schools in the Consortium were Clark College, Atlanta,

Georgia; Florida A & M University, Tallahassee, Florida; Jarvis

Christian College, Hawkins, Texas; Livingston University, Livingston,

Alabama (Livingston withdrew from the Consortium in the fall of 1972);

North Carolina Central University, Durham, North Carolina; Norfolk

State College, Norfolk, Virginia; Shaw University, Raleigh, North

Carolina; South Carolina State College, Orangeburg, South Carolina;

Tennessee State University, Nashville, Tennessee; and Xavier University,

New Orleans, Louisiana. Three other schools were added to the Consortium

in the fall of 1972. These schools were Pembroke State University,

Pembroke North Carolina; Prairie View A & M College, Prairie View,

Texas; and The University of Se th Alabama, Mobile, Alabama (Associate

Member).

The schools selected North Carolina Central University, Durham,

North Carolina as "Consortium Central," developed Bylaws (see Appendix A),

and selected an Executive Board of five members to assist in handling

Consortium affairs. The Executive Board was subject to the control of

the Board of Directors which consisted of the director of the project at

each institution. The Consortium has been functioning in the development

of competency based teacher education since its inception in 1969.

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[4]C. James Dyer, "The Consortium of Southern Colleges for Teacher
Education" (unpublished manuscript, North Carolina Central University,
Durham, North Carolina, 1972). Dr. Dyer was named the Director of the
Consortium and serves in that capacity today.

The Development of the NCERD Project

The Executive Board of the Consortium met in Atlanta, Georgia, in
the fall of 1971 and wrote the project, "Development and Effectiveness
of Competency Based Teacher Education Programs in Emerging Institutions."
Dr. Norman Johnson, Chairman of the Executive Board, was listed as
the Initiator with Dr. C. James Dyer, Director of the Consortium, listed
as the Project Director. The proposal was submitted to the directors
of the Consortium and was approved by them for submission to Washington.
The development of the project utilized the definition of competency
based teacher education as it had been conceived in the original ele-
mentary models.

Competency Based Teacher Education Defined

After the model builders had completed Phase I of the original
elementary model project, they came together to begin to define compe-
tency based teacher education as the models commonality. The builders
had worked separately, following only the guides of the U. S. Office,
and had actually had very little contact with one another. After they
had completed the project, the common elements began to appear.

Conventional programs in teacher education rely on the study of
knowledges and theories which are presented to students in the form of
courses. Once the student has indicated that he has acquired the
knowledges and theories, he is enrolled in a brief practicum called
student teaching, and if he can demonstrate that he can place the
knowledges and theories into operation, he is certified to teach. Com-
petency based programs develop performance and consequence criteria in
addition to the knowledge criteria for teachers. Competency based

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teacher education programs do not decry knowledges, but they do place
emphasis on the performance of the teacher, either in simulated situa-
tions with actual pupils, in teaching peers or in clinical situations.
Further, competency based programs recognize the importance of the
product of the conseqúence of the teacher's performance. The measure-
ment of the teacher's performance is, to some degree, the learning of
pupils as a consequence of that performance. As a result of this
rationale, competency based has the following point of view:

1. Rigorous criteria for knowing, as well as systematic
   specification of what is to be known (knowledge),
   must be a part of teacher education.

2. Knowing and the ability to apply what is known (per-
   formance) are two different matters.

3. The ability to attain specified objectives with
   learners (product) represents still another kind of
   competency that will be required of teacher candi-
   dates.

4. The criteria for assessing what a prospective teacher
   can do (performance) should be as rigorous, as sys-
   tematically derived, and as explicitly stated as the
   criteria for assessing either what he knows (knowledge)
   or what he can achieve in learners (product).

5. Assessments of knowledge, performance, and product
   must be described and made systematically.

6. Only when a prospective teacher has the appropriate
   knowledge, can perform in a stipulated manner, and
   can produce anticipated results with learners, will
   he meet competency based requirements.[5]

The key to competency based education is the specification of

competencies. The model builders agree to some degree concerning those

elements which must apply to the specification of the competencies.

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[5]Norman R. Dodl and H. Del Schalock, Competency Based Teacher
Education (Berkeley, California: McCutchan Publishing Corporation,
1973), pp. 46-47.

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These common elements have been summarized by Stanley Elam as follows:

There now appears to be general agreement that a teacher
education program is performance based if:

1. Competencies (knowledge, skills, behaviors) to be
   demonstrated by the student are derived from ex-
   plicit conceptions of teacher roles, stated as to
   make possible assessment of a student's behavior
   in relation to specific competencies, and made
   public in advance.

2. Criteria to be employed in assessing competencies
   are based upon, and in harmony with, specified com-
   petencies; explicit in stating expected levels of
   mastery under specified conditions; and made public
   in advance.

3. Assessment of the student's competency uses his
   performance as the primary source of evidence;
   takes into account evidence of the student's knowl-
   edge relevant to planning for, analyzing, inter-
   preting, or evaluating situations or behaviors; and
   strives for objectivity.

4. The student's rate of progress through the program
   is determined by demonstrated competency rather
   than by time or course completion.

5. The instructional program is intended to facilitate
   the development and evaluation of the student's
   achievement of competencies specified.[6]

The establishment of the competencies is extremely important.

Because the competencies must be explicit behaviors, the Consortium

schools were encouraged to develop competencies at the "performance"

level rather than at the knowledge level. In addition, since the

"role" of the teacher is so important, Consortium schools were

encouraged to think in terms of the roles of the teacher as facilitator

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[6]Stanley Elam, A Resume of Performance Based Teacher Education:
What Is the State of the Art? (Washington, D.C.: The American Asso-
ciation of Colleges for Teacher Education, 1972), p. 4.

of learning, interacter, diagnostician, and innovator [7]

Once competencies are delineated utilizing the criteria that have been described, the competencies must be operationalized. Consortium schools were encouraged to operationalize the competencies by stating them in such a way as to specify the learner, to specify the explicit behavior, to specify the conditions surrounding that behavior, and to specify the criterion level for the performance. If the competencies are specified in this manner, then the sub-competencies can be delineated. (The model builders utilized the terms "competencies" and "objectives" synonymously.[8])

If the competencies are operationalized and the sub-competencies have been delineated, then a systems approach is utilized in order to arrive at the attainment of competency. The systems approach can be diagrammed as follows:[9]
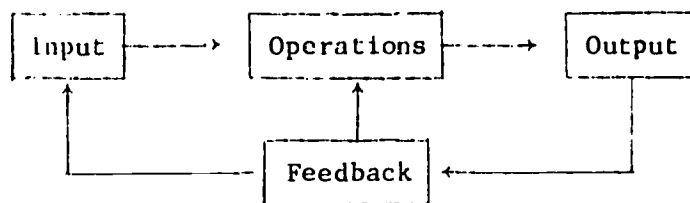
Basic Systems Design[9]

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[7]These roles were established at Auburn University, Auburn, Alabama as a portion of a Triple "T" project. The roles were studied carefully and behaviors of the teacher were carefully delineated for each role. Persons desiring further information may contact Dr. Kenneth Cadenhead, College of Education, Auburn University, Auburn, Alabama.

[8]Charles E. Johnson and Gilbert F. Shearron, Competency Based Teacher Education, "A Systems Approach to Program Design" (Berkeley, California: McCutchan Publishing Corporation, 1973), p. 49.

[9]M. Vere DeVault, Competency Based Teacher Education (Berkeley, California: McCutchan Publishing Corporation, 1973), p. 22.

The output refers to the competencies, the sub-competencies, or the behaviors that the system is supposed to achieve. The input refers to the entry level behavior at any point in time in relation to the system. The operation can be described as the process that is utilized to move from the input to the output. The feedback system allows for evaluation procedures in order to ascertain whether the system has produced the desired product. If the system has failed to reach the output level, then that portion of the system which is faulty can be redesigned in order to reach the desired output.

In addition to the specification of competencies and the use of the systems approach to the attainment of competency, the elementary models also indicated that the competency based teacher education program should have other characteristics. The models should have individualized, self-pacing and personalized instruction. Teacher education students must experience this type of instruction in order to supply the same types of instruction for elementary pupils. In addition, this type of instruction would call for field orientation in order that performances and consequence criteria might be demonstrated in the field. The system should provide for learning alternatives in order that the program might be individualized and personalized. The system should also utilize technology which provides several learning alternatives. The approach for the education of teachers should be interdisciplinary and oriented to research. In addition, the model builders indicated that exit requirements seemed to make more sense than entrance requirements. Teachers should be gauged on what they can do after they have completed a program rather than on what they have

when they enter a program.

While the model builders did not specify the type of delivery system which the above imply, they recommended that the delivery system that would provide all of the above elements would be the modular approach. The module must have a behavioral objective, state the prerequisites for the module (if there are any), establish the rationale for the module, delineate the preassessment, describe the learning alternatives, and provide a postassessment instrument. This modular approach, using the system which has been described, would provide the elements which the builders deemed necessary to the systems approach.

In order to implement the modular approach to the attainment of competencies, it would be necessary to design management systems for each stage of design, development, implementation, and evaluation which would include, among others, faculty development programs, research, financial cost accounting, the development of learning centers, clinical experiences and administration. The approach would have to be multi-institutional and include public school personnel, educational associations, state departments of public instruction, industry, government agencies, consortia of colleges, and the communities.

The Consortium of Southern Colleges accepted the elements of competency based teacher education and subscribed to developing, with minor modifications, the delineation of competencies, the systems approach, the modular approach to the attainment of competencies, and the elements of the systems approach. It was with this groundwork that the project to NCERD was written and with this definition of competency based teacher education in mind.

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Preliminary Procedures for Ini-
tiating the NCERD Project

The research project, "Development and Effectiveness of Compe-
tency Based Teacher Education Programs in Emerging Institutions" was
funded by the National Center for Educational Research and Development
effective January, 1972. The project had the following objectives:

1. To develop exportable prototypes of competency-based
   teacher education programs at each Consortium School
   suitable for small colleges and universities through-
   out the United States with limited human and financial
   resources. Attending sub-systems models will be
   developed along with the curriculum model.

   Examples of such prototypes will include:

   (a) functioning models of management systems for
       competency-based teacher education programs
       in small colleges and universities with limited
       resources;

   (b) functioning faculty development programs for
       the implementation of competency based teacher
       education programs in small colleges and uni-
       versities with limited resources;

   (c) functioning community involvement sub-systems
       for competency based teacher education model
       programs especially adapted to small colleges
       and universities with limited resources.

2. To assess the effectiveness of specific, innovative components

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of the competency based programs which are operational
at each Consortium School.

3. To construct a strong interdependent and interactive
    teacher education program development body (consortium)
    as a model for other small, emerging institutions of
    higher education. This body will establish a central
    office to include a repository and dissemination center
    for competency based program materials, modules, manage-
    ment schemes, and other related materials from Consortium
    Schools.

    This center would be coordinated with other innova-
    tive agencies involved in elementary education such as
    AACTE, ERIC, and national research and development. centers.
    This liaison would render central and vital service to
    the development of programs at member schools. AACTE and
    ERIC, as well as research and development center activi-
    ties, are developing materials and providing information
    which can be used directly by the member institutions
    and assist immeasurably in idea stimulation which greatly
    reduces module development time. Information on commer-
    cial materials from educational industry will also be
    coordinated through this center. Protocol and training
    materials will be a primary element for dissemination
    from this center.

    Chart I on the following page illustrates the de-
    sired organizational relationships to be developed.
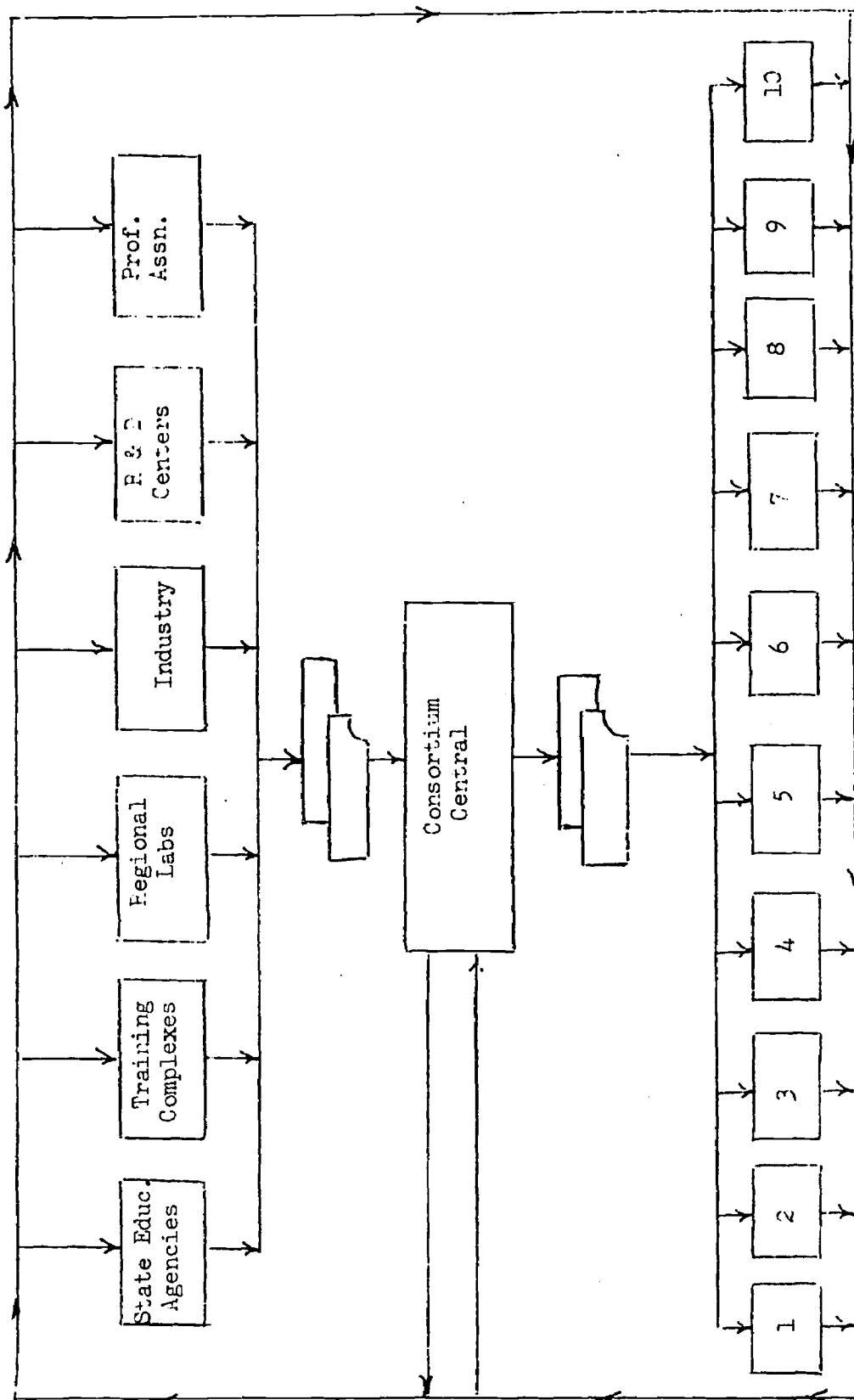
Chart 1. Relationship Between Consortium and other Agencies

State Educ. Agencies

Training Complexes

Regional Labs

Industry

R. & D. Centers

Prof. Assn.

Consortium Central

1 2 3 4 5 6 7 8 9 10

Such relationships between Consortium Central and member schools and the flow of information and materials from agencies noted appears to be critical to economical, efficient program development.

4. To develop a Consortium informative dissemination and consultant service to assist other colleges and universities interested in competency based teacher education programs.

5. To develop fun.tional demonstration units for serving Consortium members and available in a limited degree to other educational agencies and training complexes throughout the United States. Demonstration units such as learning laboratories for individualized instruction, simulation laboratories, and human relations laboratories will be priorities. These demonstration units will be especially useful to, and could be developed in cooperation with, other programs such as urban development programs, Teacher Corps, New Careers, and Career Opportunities Programs. These projects have programmatic interests in common with the current Consortium efforts and objectives.

6. To assess the feasibility of student and faculty exchange among Consortium colleges in cases where each schorl has developed special strengths in competency based education. For example, if

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NCCU has special strengths in human relations the

faculty members from NCCU may go to Norfolk State

College to assist its faculty in establishing a

strong human relations training program.

Preliminary work on the proposal was begun in Consortium meetings from

January through May, 1972. During these meetings it was decided that

project plans for the design, development, and implementation of

competency based teacher education at Consortium schools could proceed

with the present directors of the project at each school delineating

plans relative to meeting some of the goals of the NCERD Project.

(See Appendix B - Exemplary Site Programs.) The activities of Con-

sortium Central were reviewed by the project directors in order to

further assist Consortium schools as they moved to implement the con-

cept of competency based teacher education. In addition, demonstration

sites were selected, certain components were assigned to certain

schools who volunteered to develop demonstration sites, and each of

the Consortium schools agreed to continue with the development of

modules in order that the project could proceed once full-time personnel

were employed.

Full-time personnel were employed effective May 31, 1972. During

the month of May the team, consisting of Dr. Howard Fortney as Project

Director, Dr. Freda Judge as Program Specialist, and Dr. Erby Fischer

as a Temporary Research Assistant relocated from Livingston University

at the University of South Alabama.

During this initial project time, the Consortium schools proceeded

with the development of programs of competency based teacher education.

The original Consortium was expanded to include Pembroke State University in Pembroke, North Carolina; and Prairie View Agricultural and Mechanical College at Prairie View, Texas. The University of South Alabama was provided Associate Membership in the Consortium. These twelve schools became the Consortium of Southern Colleges for Teacher Education for purposes of fulfilling project requirements.

The research team, relocated at the University of South Alabama, called as a consultant Dr. Donald Cruickshank, President of Wheelock College, Boston, Massachusetts. (Dr. Cruickshank has since returned to Ohio State University.)

With the assistance of Dr. Cruickshank, the research team studied the project proposal for two days and delineated four specific areas which would have to be investigated by the project to meet the objectives in the proposal. The project areas of investigation were: (1) to design, develop, implement and evaluate competency based teacher education programs at Consortium schools, (2) to design, develop, implement and evaluate improved Consortium organization and services, (3) to develop selected program sites for demonstration to Consortium members and limited others (These components have previously been delineated by the Consortium schools as learning laboratories, human relations laboratories and portal schools.), and (4) to compare modular trained teacher education students with traditionally trained teacher education students.

The research team realized that they knew very little about the Consortium schools, relative to administrative or program structure, physical facilities, resources, etc., although they had attended

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Consortium meetings over a period of several years. As the team began

to work with the Consortium schools in the first area of project in-

vestigation, it was determined that in order to approach the project

objectively, data would first have to be gathered from Consortium

schools relative to the level of development of competency based pro-

grams in teacher education at each school. The team began by visiting

schools within the Consortium so that they could begin to analyze the

problems that the schools would be facing as well as identify the

level of development of programs at each school. Schools that were

visited in this initial stage were Florida A & M University, Xavier

University and North Carolina Central University.

As each of the original Consortium schools had been working on

the development of the program for three years, and had developed an

approach to CBTE that was indigenous to that institution, any plan for

the initiation of the project objectives would have to be cognizant

of the varying levels and program approaches of each school. To aid

in the identification of the stages of program development at each

Consortium school, the research team decided to use a modification of

the schema presented by Cruickshank in the Journal for Teacher Educa-

tion. This schema can be conceptualized as follows:[10]

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[10]Donald R. Cruickshank, "Conceptualizing a Process for Teacher
Education Curriculum Development," Journal for Teacher Education,
XXII (Spring, 1971), 74.

NEED STAGE

DESIGN STAGE

DEVELOPMENT STAGE

IMPLEMENTATION STAGE

Organization for Participation

Selection of Most Desirable Form of Change

Needs Identified and Stated

Needs Translated into Assumptions

Priorities Established

Alternative Experiences Learning Components Conceptualized

Capabilities and Constraints Identified and Considered

Learning Components Designed

Correction for Feedback

Learning Components and Support Subsystems Developed

Learning Components and Support Subsystems Implemented

Subsystems Evaluated

Stages in the Development or Metamorphosis of a Teacher Education Program

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The original Cruickshank schema was adapted by the research
team as follows:

Adaptation of the Cruickshank Schema
for the NCERD Project
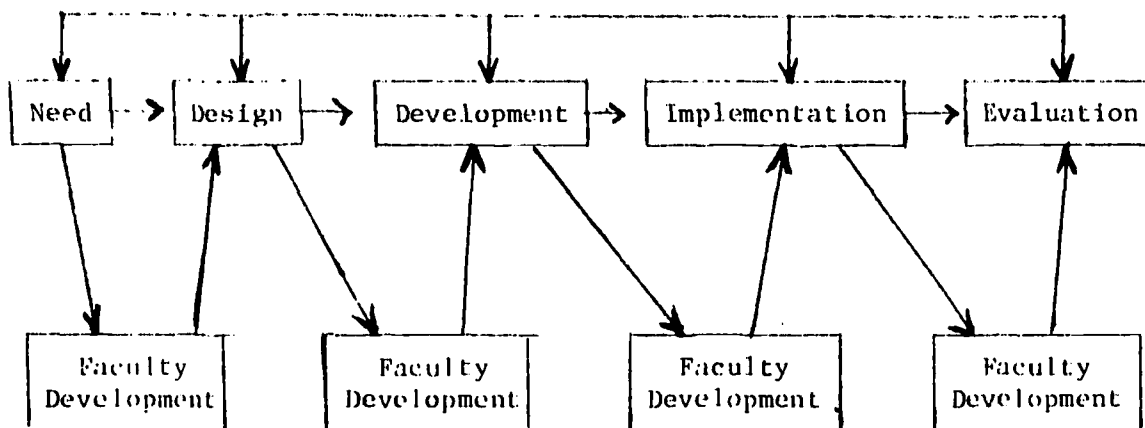
This design for Competency Based Teacher Education Program develop-
ment can be explained as follows: Each institution delineated its need
in terms of where it was in the schema and how it wished to proceed.
Once the need had been delineated, the institution designed a program
which would be in response to the needs peculiar to that institution.
The development stage was planned in terms of both the need and the
design. Usually the development stage included the development of com-
petencies, the plans for the development of modules to attain the com-
petencies, and the establishment of dates to help monitor program devel-
opment. The implementation stage usually included plans for the initia-
tion of pilot programs which, if successful, would begin to supplant the
traditional program in teacher education. The evaluation of the
program is both formative and summative and evaluates both process

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and product. Faculty development refers to the need for continual

faculty involvement in planning and implementation of the program.

Because the research is developmental and concerned with both

formative and summative evaluation, it was decided to incorporate the

CIPP Process (Context Evaluation, Input Evaluation, Process Evaluation,

and Product Evaluation) as a strategy for evaluating the components of

Cruickshank's schema. The CIPP Evaluation Model is clarified by

Stufflebeam as follows:

> The CIPP Model defines evaluation as the process of
> delineating, obtaining, and providing useful information
> for judging decision alternatives. This definition contains
> three important points: First, evaluation is a systematic,
> continuing process; second, the evaluation process includes
> three basic steps: the delineating of questions to be
> answered and information to be obtained, the obtaining of
> relevant information, and the providing of information to
> decision makers for their use to make decisions and thereby
> to improve ongoing programs; and, third, evaluation serves
> decision making.
> Since evaluation should serve decision making, the
> decisions to be served must be known. Four kinds of deci-
> sions are specified by the CIPP Model. Planning decisions
> determine objectives. Structuring decisions project pro-
> cedural designs for achieving objectives. Decisions in
> executing chosen designs are implementing decisions, and
> recycling decisions determine whether to continue, termi-
> nate, or modify a project.
> These decision types are served by four types of evalua-
> tion. Context evaluation provides information about needs,
> problems, and opportunities in order to identify objectives.
> Input evaluation provides information about the strengths
> and weaknesses of alternative strategies for achieving
> given objectives. Process evaluation provides information
> about the strengths and weaknesses of a strategy during
> implementation so that either the strategy or its imple-
> mentation might be strengthened. Product evaluation pro-
> vides information for determining whether objectives are
> being achieved and whether the procedure employed to achieve
> them should be continued, modified, or terminated. Basically,
> the CIPP Model answers four questions: What objectives
> should be accomplished? What procedures should be followed?
> Are the procedures working properly? And, are the objectives

being achieved? (More detailed descriptions of the CIPP
Model are referenced at the end of this article).[11]

Each component (need, design, development, implementation and evalua-

tion) can be evaluated individually in order to see if the objectives

of that component are being reached. If the component objective is

not being reached, then the objective can be analyzed and redirected

in terms of the problems inherent in the component. Thus each insti-

tution will have its own individual program evaluated in terms of its

need, its design, its development, its implementation and its evalua-

tion.

_____

[11]Daniel L. Stufflebeam, "The Relevance of thw CIPP Evaluation
Model for Educational Accountability," Journal of Research and Develop-
ment in Education, Volume 5 (Fall, 1971), pp. 19-25.

CHAPTER ONE

GOAL I

To Design, Develop, Implement, and Evaluate Competency
Based Teacher Education Programs at Consortium Schools.

Goal I was designed utilizing Cruickshank's schema which has been

modified as follows:
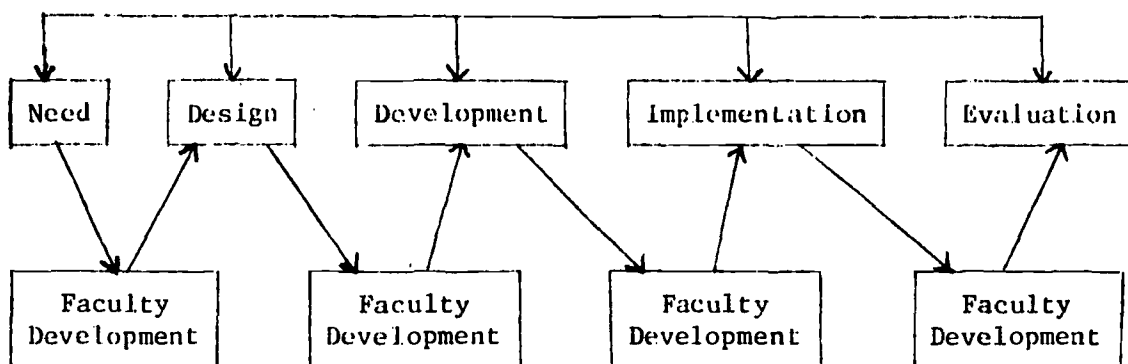
Preliminary analysis seemed to indicate that under each stage ques-

tions could be formulated that would permit each institution to lay the

groundwork for further program development. Under the NEED Stage, the

following questions were designed for a developing Competency Based

Teacher Education Program:

1. What do "we" (the institution) mean by competency based
    teacher education?

2. What is the advantage of a Competency Based Teacher
    Education Program?

3. Will we utilize only the essential elements as listed
    by AACTE or will we consider adding related elements
    which we feel are important?

4. Who should be involved in the development of competency
    based teacher education? At what level? When? How?

5. What form of change is most likely to bring about optimum results?

6. How can training needs be identified?

7. How can these training needs be assigned priority?

Under the DESIGN stage, the following questions can be asked:

1. What approach for developing CBTE will be used at your institution? (Selection, development, adaption, combination of programs, competencies and/or modules.) Appendix B.

2. What are the time objectives?

The following questions could be asked at the DEVELOPMENT stage:

1. What program format will be used?
   --convert present courses
   --utilize available listings of competencies
   --analyze teaching act and develop list of com-
     petencies from this
   --develop totally new program based on research
     and authoritative sources.
2. Who decides on the program format?
3. Who develops the format?
4. Who decides who develops the format?
5. How is the format developed?
6. What are the support systems that are available or
   may be needed as the program is developed?

At the IMPLEMENTATION stage, the following questions can be asked:

1. What is the faculty readiness to implement CBTE?
2. Who has defined goals and responsibilities under CBTE?
3. What are the goals and responsibilities?
4. What are the facilities to be used?
5. What is the operational level of the support systems?

The following questions are asked under EVALUATION:

1. What approvals are needed for CBTE?
2. Who gives approval for CBTE?
3. When is approval given? At what levels is approval
   given (the departmental level, the college level, the
   university level, the regional level, the state level)
4. How has each component of CBTE been "de-bugged"?

As the research team has worked with the Consortium schools, most

of the schools have indicated that there was a real need for continuing

faculty development conferences, particularly with regard to an overview
of competency based teacher education, the development and writing of
competencies, and the development of modules leading to the attainment
of the competencies. While many of the schools have been working for
several years in the development of competency based teacher education,
the attempts have been with a small core of faculty, particularly in
elementary or in secondary education. As a result, the competency based
program has involved a relatively few faculty members and teachers and
the schools are anxious to increase the number of faculty that are par-
ticipating in the development and implementation of CBTE programs. One
of the first requests that the research team has received from schools
has been to come to the various campuses and to conduct faculty develop-
ment conferences. In this manner, the faculties become apprised of what
is involved in CBTE and develop, cooperatively with the consultants, the
strategies for change in the program.

Thirty faculty development conferences were held by team members
at Prairie View Agricultural and Mechanical College, Jarvis Christian
College, Pembroke State University, South Carolina State College, the
University of South Alabama, Tennessee State University, Xavier Univer-
sity, and Shaw University.

During the initial phase of a faculty development conference ap-
proximately one hour was spent providing the faculty with a slide and
tape presentation that was compiled by the original model builders and
to which they subscribed as a group, relative to their definition of
competency based teacher education (Competency Based Teacher Education:
An Overview--Center for the Study of Teaching, Syracuse University).

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Following this presentation, the faculty then engaged in a discussion

of those aspects which they felt were most appropriate for immediate

priority, and then those activities which they felt should have lesser

priority. With some schools, a modified Q-Sort technique was utilized

to assign relative priorities to implied, related and desirable elements

of a competency based teacher education program (Appendix C).

Because of the faculty concern for the deriving of competencies,

the research team included a program in the construction of competencies.

Two aspects were discussed. First, the literature that was published by

The American Association of Colleges for Teacher Education was discussed.

The essential elements are described as follows:

1. Competencies (knowledge, skills, behaviors) to be demon-
    strated by the student are derived from explicit concep-
    tions of teacher roles, stated as to make possible
    assessment of a student's behavior in relation to spe-
    cific competencies, and made public in advance.

2. Criteria to be employed in assessing competencies are
    based upon, and in harmony with, specified competencies;
    explicit in stating expected levels of mastery under
    specified conditions; and made public in advance.

3. Assessment of the student's competency uses his per-
    formance as the primary source of evidence; takes into
    account evidence of the student's knowledge relevant
    to planning for, analyzing, interpreting, or evaluating
    situations or behaviors; and strives for objectivity.

4. The student's rate of progress through the program is
    determined by demonstrated competency rather than by
    time or course completion.

5. The instructional program is intended to facilitate
    the development and evaluation of the student's achieve-
    ment of competencies specified.

The research team stresses that competencies should be stated in

terms of performances which the teacher will demonstrate in either a

simulated or actual classroom setting and that the competency will be

assessed in terms of the stated product. For example, for a preservice teacher who is demonstrating a performance as a teacher aide, the product may be the operation of a machine. In a later stage of the program, when the preservice teacher may be functioning as a tutor or assistant teacher, the product would be the learning of the pupils brought about by the teacher's use of the machine. The reason the team stresses the product of the teaching act in the delineation of competencies is that many of the competency based programs, particularly those which begin to modularize courses, end up with knowledge criteria exclusively, which could conceivably lead to a teacher education program that is simply programmed learning.

Secondly, the team stresses the A B C D's of competency writing. That is, the competencies should include the audience, the behavior, the conditions surrounding that behavior, and the degree that is specified, all of which is made public and explicit to the student.

Another aspect that the research team stresses is that the competency has implicit in it the role of the teacher. The team utilizes the work of the TTT Project Auburn University, Auburn, Alabama, as an example in which the four major roles of the teacher in individualized learning programs are delineated. These roles are as facilitator of learning, interactor, diagnostician, and innovator. Utilization of these roles in the specification of competencies insures that the program does not become "locked into" the conventional classroom setting and that the teacher is not a purveyor of knowledge.

Once the faculty has been briefed on the above items in competency writing, they begin to write competencies and then, applying the above criteria, to analyze these competencies in terms of objectivity,

specificity, explicitness. As they proceed through this process, they begin to improve their writing of competencies. The team is very careful to assume the role of consultant and to gradually assume as non-directive a role as possible as the faculty learns to assess their competencies. Another method of honing up competencies is to give the competency to college students and to let them analyze the competency in terms of the criteria. Several institutions have found this method to be quite valuable.

As the faculties proceed with their plans for the development of competencies, the research team suggests that there are several ways in which competencies can be derived. This list is not intended to be exhaustive:

1. One procedure would involve conversion of present, traditional or conventional courses to competencies.

2. The institution could utilize available lists of prepared competencies and then develop their program using these competencies as a guide.

3. Another approach would involve defining pupil learning and then defining needed competencies in terms of teacher skills needed to facilitate pupil learning in public schools.

4. The faculty could analyze teaching behaviors and develop the needed competencies from the analyzation of these behaviors.

5. A faculty could construct a totally new program based on research and authoritative sources.

Nearly all of the Consortium schools which have been visited have utilized the first alternative initially and followed with a combination of several other alternatives. Nearly all of the schools have requested that they would like to have lists of developed competencies as references as they proceed with the development of their programs.

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Most of the schools utilize the guidelines developed by the Association of Teacher Educators for the development of clinical experiences. This publication suggests that the clinical experiences follow a sequential assumption of responsibility by the teacher education student. They do suggest that there be a program for "assisting teacher" and "associate teacher." Since some of the schools already have programs of early experiences with children and wish to keep this within the program as the beginning clinical experiences, they plan to utilize the following pattern of assumption of responsibilities in a desire to begin to learn to teach on a "one to one" basis and then sequencing program components.

Teacher Aide
Tutor
Assisting Teacher
Associate Teacher

Institutional Committees are appointed to begin to develop components using this design. Other committees are at work developing the competencies within the present course structure. At a later time, the competencies developed within the course structure are passed on to the committee working on the sequential assumption of responsibility and then the competencies are streamed for the program.

Once the plan for the development of competencies is completed the next step is to discuss the construction of modules in order to arrive at the competencies. Schools within the Consortium of Southern Colleges for Teacher Education have developed a format for the development of modules which is intended to be a guide to the schools and to facilitate possible transportability. Schools may choose to have more than these basic elements in the modules. This modular format is as follows:

1. Title. By this we mean that the module can be classified in some fashion to indicate what compoment to which it

belongs. For example, it may belong in language arts, human relations, etc. In some cases schools have developed methods of classifying modules according to computer technology.

2. Behavioral Objective. The behavioral objective which is written for the module must contain the A's, B's, C's and D's that are inherent in behavior, the conditions surrounding the behavior, and finally, the degree of behavior, all of which are explicit and public.

3. Rationale. The purpose of the rationale is to explain the module in terms of the act of teaching and the learning of pupils.

4. Pre-assessment. There is a pre-assessment associated with every module that should be diagnostic in nature. This provides information as to the students' proficiency in this area and for the possible need for branching. The pre-assessment is not confined to strictly paper and pencil performances of the student.

5. Learning Alternatives. The term "alternatives" is utilized instead of the term "experience" because the student always has a choice of activities which are better suited for a variety of learning styles. The alternatives usually include: (1) a learning package designed by the professor; (2) commercial materials designed to attain the behavioral objective; (3) the student's own free choice of materials. The student is not forced to utilize the program that has been provided.

6. Post-assessment. The post-assessment instrument checks the student on his behavior after he has passed through the module. Students that have reached the criterion level pass on to the next sequence in the modular stream. Students who fail the post-assessment must be recycled through other learning alternatives.

7. Resources. Each module must contain a listing of the resources required in the module to enable the student to select the most appropriate resource for his need. This listing assists administration in planning for the implementation of the program. The resource section can also give administration some idea relative to the support services that the modular system will require.

Once the procedure for the development and implementation of both competencies and modules is completed, there are questions that must be answered such as:

1. Will the program utilize portal schools so that faculty can check the competencies of college students in the field?

2. Do they have under design and development plans for a learning center? By a learning center is meant a center in which there is hardware, space for the storage and capability for the creation of software, a preview room, study carrels, video teaching studios, curriculum laboratories, human relations laboratories, and a curriculum resource center. Management systems will have to be designed in order to make the center operational.

3. What will be the function of the college professor in such a program (differentiated professor roles, clinical professor, etc.)?

4. What type of system will be used in advising students relative to a competency based teacher education program?

5. Will there be established a system of tutorials?

6. What types of system will be utilized in order to track students as they proceed through the program? Will it be a computerized system or a manual operation?

Once the questions above had been answered, then, according to the wishes and plans of the faculty, various committees were designated in order to begin to work at whatever level the school was in terms of need, design, development or implementation. Usually at least four committees were designed to manage the program. A typical delineation of the committees with their responsibilities is presented below:

COMPETENCY BASED TEACHER EDUCATION COMMITTEE

Responsibilities

1. To recommend, through proper channels, the structure and curriculum revision necessary for implementation of CBTE.

2. To serve as a clearinghouse for information on competencies and plans for CBTE.

3. To develop new committees as needed to facilitate CBTE.

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4. To establish an inservice education program for college faculty.

5. To develop plans for administration of CBTE.

6. To receive and accept competencies from the Inter-departmental Levels Committee.

7. To evaluate competencies for proper design.

8. To establish exit requirements and research procedures to validate competencies.

INTERDEPARTMENTAL LEVELS COMMITTEE

Responsibilities

1. To write job descriptions and responsibilities at each level (aide, tutor, assistant teacher, associate teacher).

2. To define and classify competencies by levels.

3. To request that department chairmen have faculty members write modules as needed.

4. To recommend competencies to Competency Based Teacher Education Committee.

5. To establish a coalition of public school personnel to assist in the development of competencies.

6. To set up a records system to monitor competencies (might be computerized).

LEARNING CENTER COMMITTEE

Responsibilities

1. To acquaint faculty with all learning resources that will be available to students in CBTE.

2. To plan for use of the center--personnel, maintenance, operational procedures.

3. To plan the development of the center in harmony with CBTE needs.

4. To locate learning resources and order materials needed to update the center.

CLINICAL EXPERIENCE COMMITTEE

Responsibilities

1. To identify centers amenable to CBTE and seek their
   cooperation.

2. To establish inservice education for cooperating schools
   in the programs. To define and develop individualized
   instruction in cooperating schools.

3. To plan delivery capability for CBTE--to avoid "over-
   loading" in field sites.

4. To plan for Portal School personnel needs and guide
   assessment of personnel for suitability for CBTE.

5. To establish cooperative procedures for the assessment
   of competencies of teacher education students.

Communication between the committees was established by having the

chairman of each committee serve on the Competency Based Teacher Education

Committee. The committees were designed in such a manner as to have the

Competency Based Teacher Education Committee hold the major responsi-

bility for the total designing, developing, and implementing of the pro-

gram. The diagram below indicates the relationships of the committees.

Committee Relationships for the Design, Development,
and Implementation of Competency Based Teacher Education
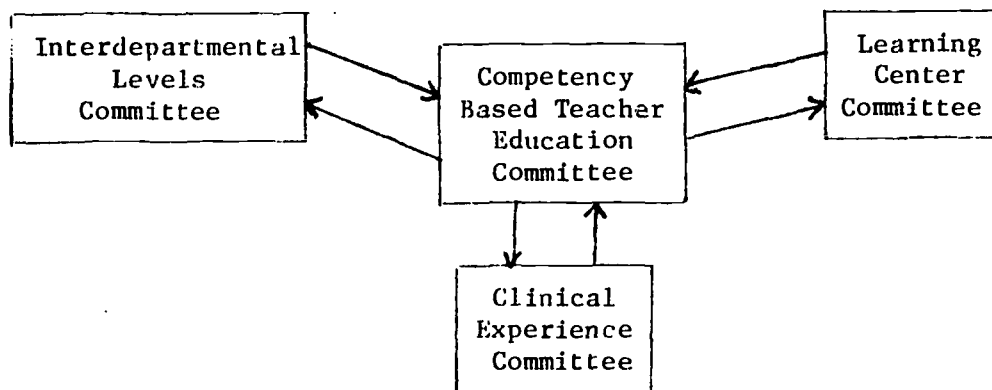
Once the committees were established and in operation, then the

committees began to develop a tentative schedule for the design, develop-

ment, and implementation. A typical schedule is provided on the next page.

This system provides a framework for discrepancy analysis for the research team as they begin to apply the CIPP Model in working with project directors.

The research team made at least two visits to each institution during the year. The initial visit was to make preparation for the research project as has been described. Each school received a final visit in which the progress of the year was evaluated. During the interim period between the initial and final visits, the research team placed themselves at the disposal of the individual directors at each institution, providing assistance to the institution when the invitation was extended. Every invitation by each institution was responded to by the research team.

PRESENTATION AND ANALYSIS OF DATA

The research team provided individual schools with 121 visits. This amounted to 321 faculty days (number of research team on the visit times the number of days). The research team traveled a total of 75,000 miles while visiting the schools and engaging in technical assistance activities and dissemination activities for the Consortium. Primary efforts of the research team were directed toward faculty development programs, conducting large and small groups in defining and understanding competency based teacher education. Much work was also done in conjunction with individual faculty members who had developed competencies and who had written modules and wanted assistance in evaluating and improving their competencies and modules. (See Appendix E.)

The reports on the schools within the Consortium are provided on the following pages.

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PROGRAM I. IMPLEMENTATION PLAN:
JARVIS CHRISTIAN COLLEGE - AUGUST, 1972

Sept., 1972   Oct., 1972   Nov., 1972   Dec., 1972   Jan., 1973   Feb., 1973   Mar., 1973   Apr., 1973   May 1973

1. Develop competencies & modules for
   Teacher Aide ————————————————————→
   Develop competencies & modules for
   Associate Teacher Level ——————————→

   Field test Teacher Aide competencies ————————→
   Field test Associate Teacher competencies
       and modules ———————————————————————————→
   Develop competencies and modules for Tutor Level ———→
   Develop competencies and modules for Ass't. Teacher ——→

Sept. 11   Oct. 31   Nov. 6   Dec. 20
Begin   Review   Submit Com-   Deadline
Meetings   Progress   petencies   materials
                               to CBTE   for field
                               Committee   testing

2. Develop Learning Center Support System (Preview Room, VTR Studio, Media Center, Operation Center. ————————→

3. Develop Support System for Clinical Experiences ——→

Sept., 1973   Oct., 1973   Nov., 1973   Dec., 1973   Jan., 1974   Feb., 1974   Mar., 1974   Apr., 1974   May 1974

1. Field test competencies and modules
      for Tutor ——————————————————————→
   Field test competencies and modules
      for Assistant Teachers ——————————→
   Revise Teacher Aide Modules ————————→

   Revise Tutor Modules ——————————————————→
   Revise Assistant Teacher Modules ——————→
   Stream Competencies ———————————————————→

2. Preparation of software and hardware curriculum laboratory ——→

3. Preparation of Support System for Clinical Experiences ——→

Sept., 1975

1. Place CBTE in full operation
2. Learning Center in operation
3. Clinical Support System ready

PEMBROKE STATE UNIVERSITY
Pembroke, North Carolina

Project Director - Dr. Janie Britt Silver

Description of Institution

Pembroke State University is located on forty-seven acres in
Robeson County in southeastern North Carolina. The institution has
approximately 2,000 students and 117 faculty members. Approximately
50% of all graduates of the institution receive certification for teach-
ing. The institution prepared about 250 teachers in 1972. The insti-
tution is state supported and under the jurisdiction of the North
Carolina University System. The school has an interesting history in
that it had the name "Indian Normal School of Robeson County" until
1940 at which time the name was changed to Pembroke State College for
Indians." Until 1945 only Robeson County Indians were eligible for
admission. In 1954 the school was opened to qualified applicants
without regard to race, religion, or national origin. The student popu-
lation in 1972 was approximately one-third white, one-third black, and
one-third Indian. The name of the school was changed to Pembroke
State University in 1969 and the school was granted regional university
status.

Description of Project

Pembroke adopted the following objectives for 1972-1973:

1. To design, develop, implement and evaluate competencies
    and modules in professional education for student
    teachers in the fall and spring semesters.

2. To begin field testing a pilot program in CBTE in
    the fall of 1972 with student teachers.

3. To develop a management system for CBTE for testing
    in the fall of 1972.

4. To engage in a faculty development program in the
    liberal arts section of the university in CBTE.

5. To design a system for delineation of competencies,
    a system of sequential assumption of responsibility
    for teacher education majors, and to begin develop-
    ment of modules in the liberal arts sections of the
    university in general education, specialization, and
    general secondary education.

6. To design a total system for the eventual implementa-
    tion of CBTE at the university and to design the neces-
    sary support systems.

7. To plan for a total conversion to CBTE by 1978.

The design of the Pembroke State University Project included exten-

sive faculty development programs in CBTE in the Department of Teacher

Education. Once the faculty in this division was familiar with CBTE

and had learned to design competencies and modules, then the university

was to engage in an extensive faculty development program in the approxi-

mately twenty departments comprising the rest of the university. The

design of the total program is presented below:

Experience Levels
For
The Teacher Education Program
at
Pembroke State University
Pembroke, North Carolina

Career or Continuing Teacher

(Tenured--after three years of successful teaching ex-
perience and upon action of public school officials)

↑
Probationary Teacher

(for first three years--regular teaching duties, employed in a
public school with regular salary for a beginning teacher)

$\uparrow$

Intern

(Public School Classroom--recommended for certification
by the University upon completion of successful student
teaching experience)

$\uparrow$

Tutor

(Public School Classroom--one-to-a maximum of three
pupils in a controlled instructional setting)

$\uparrow$

Teacher Aide

(Public School Classroom--non-instructional duties only)

$\uparrow$

Pre-Service Teacher Education Applicant
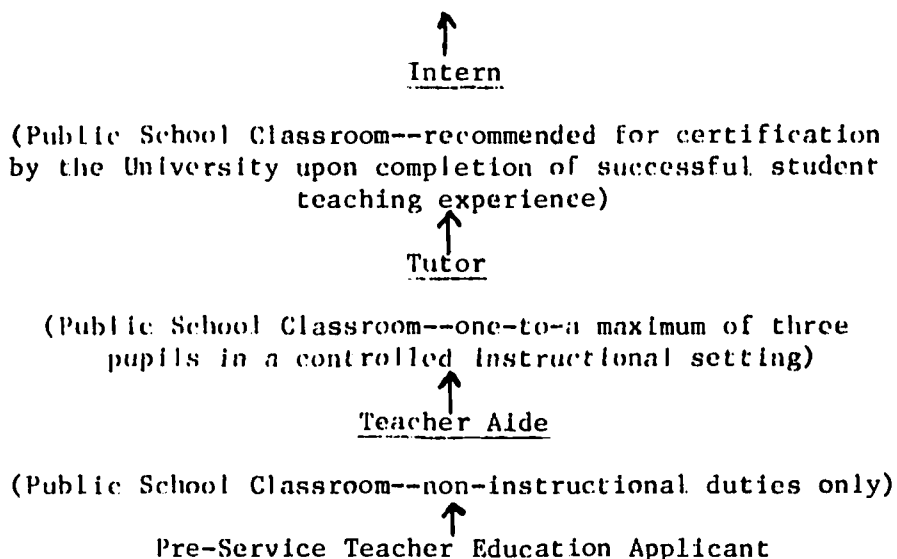
The program design would affect both elementary and secondary
education. Students would proceed with a sequential assumption of
teaching responsibility until they completed the entire program.

Procedures Developed

The University made extensive use of the research team in faculty
development conferences in general CBTE and in working with small groups
and individuals in identifying competencies and writing and evaluating
modules leading to the attainment of competency. The research team made
nine visits to the university and provided forty-five days of consultant
time to the university.

Pembroke became a member of the Southern Consortium in the summer
of 1972 and, at an initial faculty conference, made plans for the devel-
opment of CBTE at Pembroke. The steps designed were to begin with cur-
riculum study, develop and/or identify competencies, and to write
modules. The plan adopted was to begin with the student teaching block
and develop competencies for this block. The faculty decided to modify

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beginning courses for elementary and secondary majors and to develop competencies at the teacher aide and tutor levels. In this way competencies would begin to emerge at all levels, working both up and down the schema provided above.

The faculty set a date of August 23rd to modify three courses in the student teaching block (Methods, Foundations, and Student Teaching) to have modularized by September 30th. The competencies were to be modularized and tested by student teachers in the fall semester. During the second semester, competencies were to be written at the teacher aide and tutor levels. A management system was to be implemented for the program for the fall of 1972. Faculty development work in departments other than teacher education was to begin in the fall of 1972 and to continue in the spring of 1973. Competencies and modules were to be developed in these departments in general education and in the areas of specialization.

To oversee the development of competencies, the development of support systems in a learning center, and to coordinate the development of the clinical experiences needed throughout the university, five committees were established. They were named the Competencies Committee, the Resources Center Committee, the Portal Schools Committee, the Interdepartment Levels Committee and the Exit Criteria Committee. Functions and duties of these committees were established in relation to the development of CBTE.

Discrepancy Analysis

Pembroke had completed approximately 100 modules by September 30, 1972, and tested these with students in the fall semester. A manual

management system was devised by the fall semester and the students were
tracked through the modules on charts kept in the office of the Chairman
of the Department of Education. The faculty development program was
initiated in the other departments of the university and these faculty
members began to write competencies and modules in their departments.
The faculty also engaged in seminars relative to evaluating and improving
their competencies and modules. A committee structure was designated to
oversee the development and implementation of CBTE at the university and
the duties of the committees were formulated. Committees have also been
designated to formulate competencies and modules for the teacher aide
and tutor levels in the overall program. As of May, 1973, task analyses
of the aide and tutor levels have produced twenty-two competencies and
modules are under development in these areas. In May, 1973 approximately
150 modules had been developed throughout the total university.

Expediting Factors/Problems Encountered

Several factors were prevalent to assist the university in its
development of CBTE. The administrative support for the program was
evident from the beginning. The Vice-President for Academic Affairs and
Dean of the Faculty was present at the initial conference as well as
other administrative officials. The Dean gave constant support for the
program through conferences with the research team as they worked with
the faculty. The Head of the Department of Education worked closely
with the project director and the faculty in the Department of Education.
In addition, the smallness of the university created ample opportunity
for communication with the various segments of the faculty. The faculty
is highly professional and was motivated in attempting to improve their

educational program. The State of North Carolina, through the State

Department of Public Instruction, has mandated the adoption of compe-

tency based teacher education by 1978.

Problems encountered by the university included insufficient funds

to buy commercial materials for the modules, lack of funds to establish

necessary services in the learning center, lack of funds for buying the

media (software and hardware) necessary for the implementation of the

program. Inasmuch as the school systems in which clinical experiences

were held tend to be traditional, the competencies that the university

students acquired tended to be conventional competencies. The develop-

ment of portal schools should assist in alleviating this problem. An

additional problem rests with the fact that the university structure,

particularly in the social sciences department is conventional, i.e.

the departments of geography, political science, history, sociology,

etc., and that these departments must develop competencies for social

studies teachers which must be interdisciplinary. This will necessitate

the formulation of interdisciplinary committees which cut across depart-

mental structure.

Evaluation

Pembroke State University met or exceeded every objective which

was set for the grant period. The establishment of a continuing group

of committees to continue the progress toward CBTE would seem to indicate

that the progress achieved by the university will continue. The uni-

versity has been asked to participate in several conferences in North

Carolina to present their program and to assist other schools in the

state as they attempt to meet the state mandate for adoption of CBTE by

1978. The university would receive tremendous assistance if funds were found which would allow them to make purchases necessary to their program. The university wrote a federal project to the Bureau of Indian Affairs, which, if funded, could assist the program tremendously. In addition, the university has been active in research this year in the development of CBTE. Two research projects are underway to test the validity of CBTE. One, a dissertation in elementary physical education, is providing tremendous assistance to the faculty. Another research project is related to social studies which provided the university with some very small assistance in their program. The university has requested that they be permitted to field test materials in conjunction with the Educational Testing Service as ETS develops a Competency Based National Teachers Examination.

Projections

Pembroke State University has made tremendous strides in the development of CBTE during this grant period. It is believed that this progress will continue so that the university can meet the mandate of the state department and have CBTE in operation by 1978. The faculty will continue to develop competencies and modules at all levels. These modules will be evaluated and rewritten. Management Systems will continue to be improved and support systems designed. The university will continue to search for funds which can give assistance to the development and implementation of the program.

SOUTH CAROLINA STATE COLLEGE
Orangeburg, South Carolina

Project Director - Dr. Alba Lewis

Description of Institution

South Carolina State College is a state supported institution with
an enrollment of approximately 3,400 students enrolled in undergraduate
and graduate level work. The campus is located on 125 acres of land in
Orangeburg, South Carolina, forty miles east of the state capital at
Columbia. There are approximately 15 faculty members in the School of
Education.

Description of the Project

In the fall of 1972, the project director, faculty and research
team member had identified the following objectives to be accomplished
during the 1972-1973 academic year:

1. The development of a modular program in each of the
   following areas: (a) Educational Psychology
   (b) Human Relations, (c) Reading, both in the re-
   medial program and in the teacher education courses
   dealing with the teacher of reading.

2. Field testing of the component "You and the Task of
   Teaching" with a pilot group of 25 students.

3. The planning and development of the content to be in-
   cluded in an elementary block which would combine
   several of the existing methods and materials courses.

4. To make recommendations to the College Curriculum
   Committee regarding changes in the teacher education
   program in terms of course offerings, offering
   alternatives to last semester student teachers,
   adding the elementary block and thereby deleting the
   methods and materials courses.

5. To develop a broader awareness and knowledge base for the South Carolina State administration and administrative personnel in CBTE and the developing South Carolina State model.

6. To begin planning for the 1973-1974 program in terms of developing clinical experiences sites, projecting testing for certain modules which were in the development stage.

There had been 25 modules developed in the area of Special Education during 1971-1972 and these were to be tested during the first semester of 1972. The faculty and staff in reading were developing plans to implement a three-pronged approach program in the area of remedial reading for the spring semester. One section was to be conventionally programmed, the second section was to be exposed to a competency based approach and the third group was to utilize a combination of approaches. Plans for data collection were to be built into this program with results made available to the Consortium.

A pilot group of 25 students, enrolled in the introductory education course (freshmen), was to be programmed into a section that would be competency based while the second group of 25 students was to be a conventional approach section. Comparative study data was to be kept for analysis on both groups.

Clinical experiences were being developed in relation to specific area experiences rather than utilizing a differentiated staff approach.

Hardware and software resources were scattered in various locations around the campus and plan approval was anticipated from the administration to develop a centralized facility for this part of the CBTE program.

Program development work by the faculty was being done by faculty members working independently. A request was made for a Faculty Development Conference to be conducted by the research team.

At all levels of administration, there was verbal support for the project director and the new program.

Procedures Followed

After the initial visit, two members of the research team conducted a two day Faculty Development Conference. The first day was spent in individual conferences with each component coordinator. At this time, specific goals for that particular area were delineated and the coordinator of the component began developing a PERT chart for that area. The second day was totally devoted to a general faculty-led discussion of the South Carolina State Model. This type of activity provided many of the faculty members with the opportunity of a "give and take" role. Many of the topics raised and discussed were to be included in the next faculty meeting, as the faculty felt the need to have more discussion of these topics. There were approximately twenty-five faculty and administrative personnel at this conference.

During all subsequent visits, the same type of format for meetings was utilized with attendance ranging from twelve to thirty faculty and administrative personnel. No new committees were established in relation to program development; rather the structure of the former committee organizations was kept. The final program activity for the year was a one-day retreat held at Camp Daniels, approximately twenty miles from the campus. This retreat, funded by the School of Education, involved

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cross-campus faculty members from South Carolina State, local public school administrators (superintendents and principals), cooperating teachers, regular classroom teachers and the South Carolina Education faculty. The retreat focused on an overview of CBTE and three of the components that have been developed--two of which are presently being field tested.

A total of four visits were made by research team members for a total of fifteen days devoted to the development of the CBTE program at South Carolina State College.

Discrepancy Analysis

There are only two areas relating to the program goals that have not yet been accomplished by the project staff. The curriculum could not be presented to the College Committee and will be presented at the first fall meeting of the Curriculum Committee of the 1973-1974 school year. The second area that was completed was in Educational Psychology where a committee had been assigned to modularize the component. The coordinator of this area states that the demands of other activities and the limited time has forced his committee to be behind in the development of this component. It has been projected that it will be completed during the summer of 1973.

Expediting Factors/Problems Encountered

Two of the major expediting factors that have helped develop the South Carolina State program have been identified. First, the unity, cohesiveness and willingness to work that has developed as most of the faculty has actively begun to operationalize the CBTE program. Most of

the component coordinators have provided leadership and delegated
responsibility from the project director, leading to a broader base
of faculty-staff involvement. Secondly, the administrative support for
the program is very evident, both in concrete and psychological terms.
The commitment to the development of a new Learning Center, to become
a reality the summer of 1973 is one such concrete example. The finan-
cing of the one day retreat (with substitute teacher pay allowance
given to participating classroom and cooperating teachers, as well as
providing faculty released time) is another tangible example of such
administrative support. The presence of administrative personnel at
program development meetings gives the faculty a boost as well as pro-
viding the administration with basic CBTE information needed as well as
developing an awareness of areas which may eventually need policy or
regulation changes.

There are several problems that have been encountered. The most
serious problem relates to the lack of support personnel for the faculty.
Many of the faculty have had to assume typing and other clerical duties
in order to have modules, materials, etc. ready for student use. As
more and more of the program becomes competency-based, this basic prob-
lem, according to interviews conducted with director-faculty, will
seriously hinder the program development. The faculty and staff have al-
ready begun working on several of the other identified problems. The
need for a program review committee who will look at the component con-
tent (review, sequencing, duplication, omission, updating, etc.), clini-
cal experiences needed for various components (where, for how long,
credit, vs no credit, etc.) and the utilization of faculty (teaming,

block assignments, etc.) are becoming agenda topics for faculty meet-ings during the summer. The second area of concern is the fact that the project director reports the faculty has not totally shifted psy-chologically from a traditional program frame of reference to a compe-tency based frame of reference. Courses, examinations, paper and pencil assignments, term papers are still being discussed and in some places very much in evidence. There must be a conscious effort by all faculty to change and reorient their thinking in these areas. Finally, now that some parts of the program have become operationalized, the faculty and staff need to review and possibly reidentify the program competencies.

Evaluation

The South Carolina State College CBTE program can be placed into the modified Cruickshank schema:
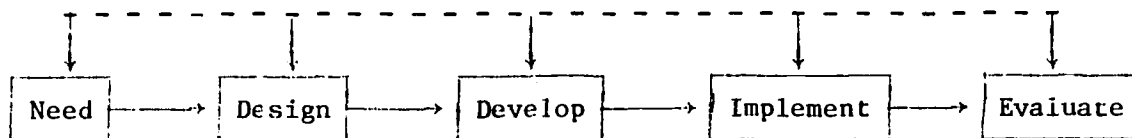
The program as it is presently in operation would fall between the DEVELOPMENT and IMPLEMENTATION stages. With some exceptions, there is complete faculty involvement in planning, development and implementa-tion of the program. During the past year there have been developed, or are in the final stages of development, approximately seventy-five modules in various component areas. Several clinical experiences have been developed for students. There is an active program underway to involve non-School of Education faculty in the program so that those support areas used by elementary education majors will consider and con-vert to a competency based approach in the near future. At all adminis-

trative levels (Dean, Academic Vice-President and President) there is evidence of program support.

Projections

Both the project director and the faculty look forward to completing the pilot field testing of the first introductory education component, used with the freshman class. Data that has been gathered from that pilot group, plus student and faculty reactions and suggestions will be evaluated over the summer. During the summer work will be completed on the modules that have been partially developed and it is hoped that the Educational Psychology component will be finished and ready for field testing in the fall. All freshmen in the fall semester will begin under a CBTE approach and a modularized program for the sophomores will be ready.

With the renovation of the building and the creation of the new Learning Center this summer, plans for development of software, micro-teaching, media utilization and materials development are underway.

FLORIDA A & M UNIVERSITY
Tallahassee, Florida

Project Director - Dr. Lillie Davis

Description of Institution

Florida Agricultural and Mechanical University is located in
Tallahassee, capital of the state of Florida. There are over 4,500
students enrolled in six colleges and schools housed in more than 70
buildings. The School of Education has three instructional departments
(Elementary and Early Childhood Education; Secondary Education; and
Health and Physical Education), three laboratory schools, four service
areas and a graduate division. The Competency Based Teacher Education
Program is located in the Department of Elementary and Early Childhood
Education.

Description of Project

At the beginning of the 1972-73 academic year, the project director
and faculty had identified the following specific objectives to be accom-
plished during the year:

1. To complete the modular development in the following
   component areas--human relations, introduction to educa-
   tion, elementary mathematics, social studies.

2. To identify the pilot group of students to begin work
   under the competency based program.

3. To begin the implementation phase of the program with
   the selected pilot group of students.

4. To develop a management system for tracking progress of
   students in the CBTE program.

5. To implement the Simulation Laboratory as part of the
   teacher education program.

6. To continue additional modular development of the program for use during the 1973-1974 year.

7. To implement clinical experiences in area public schools for teacher education students.

8. Conduct a series of inservice and seminar meetings for program faculty and staff.

There had been approximately twelve modules developed during 1971-1972 and these were to be field tested during the fall semester. Ten students were identified as the pilot group of freshman students to begin implementing the CBTE program with the modularized program developed by various faculty members during the summer of 1972.

The Simulation Laboratory had been placed in a centrally located room and materials were being centralized and cataloged prior to being made available for student use.

Procedures Followed

During the initial visit by the research team member, the project director identified the objectives for the year. As this conference was held during the summer break, no faculty members were available for conferences. However, all other research team visits included conferences with the faculty and with the pilot group of students. The Simulation Laboratory materials are centrally housed and selected sections are being utilized by seven different program areas. Also being stored in the Simulation Laboratory room are all of the CBTE program materials and resources (books, filmstrips, transparencies, etc.). Modules with all of the necessary support materials/software are on file in this single location making it extremely functional for students and faculty. This room is also set up for simulated peer teaching sessions; having both

round and rectangular tables, arm chair desks and conference chairs

available for use.

The faculty member handling a specific component area is in charge

of any related clinical experiences and/or field competency check-out

procedures for the pilot group of students.

Faculty members have worked to develop area curriculum materials

centers to provide students with concrete materials for use in conjunc-

tion with field experiences.

The project director schedules periodic faculty meetings and

seminars to keep the faculty informed on all areas of the program and

its development. As this meeting is held the first thing in the morning

(at eight o'clock) when there are few, if any, classes in session, the

total elementary faculty is involved.

The director of the project has developed a manual management system

to track the progress of the students. Each component has three date

spaces showing next to each student's name. The first date space is for

when the student received the component, the second date is for the time

the student anticipates completing the component. The third date is

added as the component is satisfactorily completed and the student has

checked out of the component.

All program development work has been done under the present organi-

zational structure of the department with no new committees being orga-

nized. A total of seven research team days were spent with the FAMU program.

Discrepancy Analysis

All the project goals have been met during the 1972-1973 year.

The pilot group of CBTE students have not been able to totally complete

the modularized program developed for their use. After faculty and
student review of this problem, the project director and faculty in-
volved in this section of the program will rework the expected number
of modules to be completed to make it more realistic.

Expediting Factors/Problems Encountered

The first factor that can be identified as helping the FAMU-CBTE
program develop is the faculty's willingness to work together in devel-
oping the program. This is evidenced by attendance at the 8 a.m. pro-
gram meetings, the development of modules and the acceptance of the field
assignments to supervise clinical experiences and adjudicate students'
competencies. Administrative support is evidenced by release of faculty
to attend national meetings on CBTE and to serve on statewide teacher
education committees and help in setting up internal channels for campus-
wide committees to develop service area programs that are competency-
based. The project director feels that the Dean's support of the pro-
gram is outstanding.

One of the problems encountered in development of the CBTE program
is the replication of curriculum material locations. Several of the
departments have independently developed small but excellent curriculum
resource material libraries for use by only their students. This limits
the total use of such materials and has made the program duplicate the
cost of such materials for use by CBTE students.

One other problem area, identified by the pilot group of students,
is the need for faculty members to keep posted office hours. Many of
the students reported setting up appointments with faculty members only
to find the faculty member unavailable at the scheduled time.

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Evaluation

The Florida A & M University CBTE program would fall between the DEVELOPMENT and IMPLEMENTATION stages of the modified Cruickshank schema. This is due to the fact that there has been a pilot group of students beginning to utilize the CBTE approach and the faculty is involved in completing the CBTE program for the total teacher education program. There is faculty involvement in program planning, development, implementation and evaluation. Both the pilot group of students and faculty will have evaluation input for program modification and development.

The majority of faculty assignments regarding the project have been completed and returned to the project director within the designated time allotted.

The pilot group of CBTE students report a positive reaction to the project and have stated they enjoy working with public school pupils.

Projections

The project director, faculty and students anticipate the following activities to be carried on during the next academic year:

1. Continued modular development of the upper level of the teacher training program.

2. The beginning work in identifying and sequencing component areas that run continuously throughout the program (streaming of an area as the Human Relations Component).

3. The identification and selection of certain public schools to serve as clinical experience sites for CBTE students. Work will be done on this projection during the summer session of 1793 with LEA personnel.

4. The development of the concept and role of a Clinical Professor, tentatively to be placed in a specified clinical experience site school in the spring of 1974.

Faculty seminars and inservice meetings will be
scheduled during the fall (1973) to enable the faculty
to become acquainted with and/or gain expertise in
those general areas of background information as well
as specific competencies needed to assume the role of
Clinical Professor

PRAIRIE VIEW A & M COLLEGE[1]
Prairie View, Texas

Project Director - Mr. Bill E. Orman

Description of Institution

Prairie View A & M College is located in Waller County, forty-six

miles northwest of Houston, Texas. The college was established by the

Texas Legislature in 1876 and is under the jurisdiction of the Texas

A & M University System. The college is located on 1440 acres and has

devoted considerable effort to building new buildings in the last few

years. The college has seven major divisions as follows:

    The School of Agriculture
    The School of Arts and Sciences
    The School of Engineering
    The School of Home Economics
    The School of Industrial Education and Technology
    The School of Nursing
    The Graduate School

The college has approximately 4,000 students and approximately 250 faculty

members.

Description of Project

Prairie View A & M College established the following objectives for

the grant period at an initial conference held on July 27, 28, 1972:

1. To engage in extensive faculty development conferences
    relating to competency based education. This faculty
    development program was to involve all faculty in every
    division of the college.

2. To develop the "Prairie View Plan" for the development
    of competency based education.

3. To begin to develop competencies and modules suitable
    for competency based education.

_____

    [1] Prairie View A & M College became Prairie View A & M University
September 1, 1973.

4. To coordinate the efforts of the college in moving toward competency based education through the "Performance Based Teacher Center" which was established in 1971 as part of the Texas Teacher Center Project.

5. To establish committees and to prepare a tentative plan for developing competency based teacher education.

At a conference in 1972, the President of Prairie View A & M College challenged the faculty to develop a program in competency based education which would involve every division of the university. This total movement toward competency based education would also apply to the divisions preparing teachers. Therefore, the development of a program of competency based teacher education would, of necessity, follow the total program of the college.

Procedures Developed

The plan accepted for the design and development of competency based education at the college involved the establishment of a core of faculty who would become thoroughly familiar with the basic concepts as well as the writing of competencies and modules. It was planned that this core group would become resource persons for the entire college in developing the program.

A faculty development program was planned with a conference and workshop at the beginning of the fall term. Further conferences were planned with the deans of the various schools and with faculty members as the need arose. Committees were designated to devise a plan for the development of the college. The department of teacher education devised a sequential schema within the total college framework for the preparation of educational personnel.

The college made extensive use of the research team inasmuch as the team made nine visits to the site and consumed 54 consultant days. Extensive use was also made of other consultants in competency based teacher education in faculty conferences. No time frame was established with regard to the objectives chosen by the college.

Discrepancy Analysis

Evidence indicates that there were eight faculty conferences held during the year relating to competency based education. These conferences involved approximately 15 days of faculty time. The conferences were attended by a total of approximately 350 faculty members. The fall conference had 253 participants among the faculty. The other conferences were directed primarily at the core group of faculty.

The core group of the faculty which was interdisciplinary and representative of all schools was established in July and the group was thoroughly grounded in CBE in a three day conference in September and again in October. The faculty conferences during the year dealt with a general orientation to competency based education; utilizing a systems approach; strategies for conducting faculty training in CBE in January, 1973; the specification of competencies by departments for prototype performance based education; and classifying educational objectives, designing flow charts, specifying enabling objectives, and developing assessment procedures.

The Prairie View plan for the development of modules was developed and is presented below:

A MODEL FOR PERFORMANCE BASED LEARNING
AT PRAIRIE VIEW A & M COLLEGE

1. Historical Background of
   Instruction

   What has gone on

2. Rationale for Performance
   Based Teaching and Learning

   What change is needed and reason
   for performance based

3. The Prairie View Design:

   A. Title of Course or
      Instructional Unit

   Identifies course or instruc-
   tional topic

   B. Introduction

   Provides setting for course or
   topic

   C. Components

   Identifies problems or considera-
   tions to be dealt with

   D. Pre-Assessment

   Identifies what the student al-
   ready knows or does not know

   E. Behavioral Objective

   Behavior sought and at what level
   of proficiency

   F. Learning Experiences

   Suggested or required experiences
   for achieving behavioral objective

   G. Educational Facilitators

   Educational resources for facili-
   tating learning experiences

   H. Self Evaluation

   Means for student self evaluation

   I. Post Evaluation

   Formal evaluation to determine if
   behavioral objectives have been
   met

   J. Vertical and Horizontal
      Achievements

   Additional learning goals for
   academic enrichment

Professors in the various schools of the college were requested to

develop behavioral objectives for their courses and to design a program

following the plan above. This request emanated from the office of the

Dean of the College and was presented at the conference in September.

Inasmuch as the faculty development work was coordinated through

the performance based teaching center and inasmuch as the director of the

performance based teacher center is the chairman of the core group of faculty, efforts have been made to coordinate the efforts of the college.

The college has prepared competencies and modules. Personal interview techniques with approximately twenty-seven faculty members throughout the institution revealed the following:

Department	Plans and Development
English	Developing 5 modules. Revised the curriculum in behavioral objectives. Working on developing the entire curriculum on performance based.
Reading	Experimenting with six modules.
Elementary Education	Developing 6 modules in elementary psychology tests and measurements.
Business Education	Developing modules in Introduction to Business.
Agriculture	Three courses under modularization. Approximately twenty modules completed in the areas of entomology, soil science, and special problems.
Home Economics	Representatives in the core group (3) developed seven clusters of modules.
Engineering (Electrical)	Developed one course on performance. Instructors developing CBTE at freshman and sophomore levels.
Human Growth and Development	Four people working cooperatively have twelve modules and developing others.
Science	Working on large units in ecology, medicine. Have developed behavioral objectives.
Chemistry	Have created modules and engaged in performance teaching.
Mathematics	Freshman program in mathematics modularized.

Other areas which gave indication of faculty members working together in the delineation of competencies and modules were the areas of school

administration, industrial education, early childhood education, curriculum and instruction, social studies, nursing education, and a military science. Some other areas indicated that they had not yet begun to develop performance based or competency based materials.

Some departments indicated that they planned to provide released time for faculty members this summer for the development of competencies and modules. Administrative interviews also revealed that there were plans to provide released time for faculty to work on competencies and development of modules this summer.

Administrative interviews have indicated that plans for the design, development and implementation of competency based education at Prairie View will be coordinated through the Performance Based Teacher Center. The director of the center has been named the Chairman of the Core Group Committee (the committee to provide the leadership for the development of competency based education). The center staff wrote a Teacher Corps Project (Cycle Eight) in which a design for competency based teacher education was developed and in which the college proposed to utilize Teacher Corps interns in the development of competency based programs for teachers. The interns were to test the competencies and modules and then the modules would have been implemented into the regular program for teachers. Teacher Corps has indicated interest, according to interviews with the director of the Teacher Center, in funding the Teacher Center as a pilot program for utilizing Teacher Centers as vehicles for developing field centered programs. The regular Cycle Eight Teacher Corps Proposal was not funded. The Performance Based Teacher Center continues to work with the region in providing inservice education of teachers utilizing the minicourses developed by the Far West Education Laboratory. Interviews with the staff indicate that

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this center is in the process of developing competencies for teachers.

No overall plan has been provided to the Consortium relative either to the total design or development of competencies and modules for the teacher education program, other than the design that was submitted in the Teacher Corps Proposal. Interviews have indicated that this plan has been under development and will continue to be developed during the summer of 1973. After the plan is developed, modules will be written, and the plan implemented. The Consortium has received thirteen modules in human development. No competencies or modules have been received relating to teacher performance. The Consortium has received approximately ten modules in general education and/or specialization from the college.

Expediting Factors/Problems Encountered

Administrative support is evident at Prairie View. The President and the Dean of the College endorsed performance based education at the fall conference. The college received some funds from other federal sources for faculty development which were utilized in inservice education for the faculty. The location of the Performance Based Teacher Center at Prairie View is contributing to the development of performance based teacher education by involvement of public school personnel in the development of competencies and by providing training programs for teachers for support for CBTE through inservice training.

The institution has had two major problems as presented through interviews. Communication appears to be a problem. The development of a total performance based program with 250 faculty members in seven different schools could provide a problem. Faculty members in each

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school feel that they need to know what is happening in other schools. The second problem appears to be organizational. The line and staff organization at the college appear to follow the patterns on the next page. Following that pattern, the director of the center supplied the organizational chart indicating how the faculty inservice component would operate in conjunction with the performance based teacher center.

The Performance Based Teacher Center Director reports to the Dean of the School of Arts and Sciences. If the center has the responsibility for the development of competency based education at the total college then the authority, either direct or implied, is not reflected in the organizational chart unless the authority is to be cooperative authority. In that case, the question could be asked, "Can cooperative authority originate in the office to complete the assigned task?" Interviews with faculty and administration have indicated that there is to be some re-organization within the college.

Evaluation

Prairie View has met all of the objectives except one. The college has engaged in extensive faculty development; a plan for modularizing programs at the University has been drafted; the faculty has begun to develop modules and competencies. The degree of participation has not been established in the latter. It would appear that some departments are not involved. The Performance Based Teacher Center has been given the responsibility for developing the program and has coordinated the faculty development conferences this year.

There is little evidence that tentative plans have been developed for competency based teacher education. The research team has received

Top level:
- President
  - Dean of the College

Schools (reporting to Dean of the College):
- School of Agriculture
- School of Engineering
- School of Home Economics
- School of Industrial Education and Technology
- School of Nursing
- The Graduate School
- School of Arts and Sciences

Departments and Divisions:
- Dept. of Business Education and Business Admin.
- Dept. of Economics & Geography
- Division of Education
  - Office of Teacher Education
  - Dept. of Library Science
  - Dept. of Mathematics
  - Dept. of Military Science
- Department of English
- Division of Freshman Studies
- Department of Health and Physical Education
- Division of Natural Sciences (Biology, Chemistry, Physics)
- Dept. of Music
- Dept. of Modern Foreign Languages
- Dept. of History
- Dept. of Sociology and Social Work
- Dept. of Political Science
- Performance Based Teacher Center

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PRAIRIE VIEW PERFORMANCED-BASED EDUCATION FACULTY IN-SERVICE TRAINING COMPONENT

President

Dean School of Arts and Sciences

Director Teacher Center

Coordinator of Educational Personnel Reform

Advisory Council

Deans
Dept. Heads
Directors

Agriculture Advisory Council	Engineering Advisory Council	Arts & Sciences Advisory Council	Home Economics Advisory Council	Ind. Tech. Advisory Council	Nursing Advisory Council	Graduate Advisory Council
Resource Agent	Resource Agent	Resource Agent	Resource Agent	Resource Agent	Resource Agent	
Agriculture Faculty	Engineering Faculty	Arts & Sci. Faculty	Home Econ. Faculty	Ind. Tech. Faculty	Nursing Faculty	Graduate Faculty

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no competencies or modules relating to teacher performance in methods
and materials and it would appear that no overall plan for the prepara-
tion of teachers has been designed. Interviews have indicated that
there are plans to hire or release faculty during the summer of 1973
to continue with the task.

There is a question relative to whether the competency based
program, as it is conceived, relates to the theoretical modules of the
original model specifications. Individualized programs as defined in
the models must be self-pacing and cannot operate in a conventional time
framework and grading system. The Prairie View Model seems to imply
degrees of competency when it defines vertical and horizontal achieve-
ments as additional learning goals for academic enrichment. The original
models did not specify degrees of competency or performance.

Projections

The Performance Based Teacher Center is planning to move rapidly
toward the development of CBTE as well as CBE to meet the mandate of
the State of Texas (1975). The center staff is aware of the problems
within the program and will continue to devise plans which can alleviate
the problems. The director of the teacher center has supplied the
following as the projections:

1. Additional and more sophisticated training activities
   will be cooperatively planned and implemented for the
   interdisciplinary college faculty team members.

2. Following a schedule for implementation, a sequential
   training program designed for college faculty members
   will be implemented.

3. Following a schedule for implementat, n. a sequential training program designed for college deans will be implemented.

4. Following a schedule for implementation, a sequential training program designed for department heads will be implemented.

5. Following a schedule for implementation, a sequential inservice program will be initiated for local school personnel and community agencies, utilizing the Performance Based Teacher Center as the vehicle.

6. Following a schedule for implementation, a sequential training program for teacher education students will be conducted.

7. A performance based library and research center will be established as a viable support unit of the Performance Based Center Complex.

8. A performance based technical assistance center will be established in the Center.

9. A materials resource center will be established as a part of the Center.

10. An action laboratory will be placed in the Center.

11. An administrative and support unit for CBTE will be established at the Center.

12. A cooperative advisory committee will be established for the project to assure cooperative planning, development, implementation, and evaluation of all project activities.

NORFOLK STATE COLLEGE
Norfolk, Virginia

Project Director - Dr. M. Sharif Hafiz

Description of Institution

The Norfolk State College campus consists of approximately 100
acres of land located to the east of downtown Norfolk, Virginia. Nor-
folk is the largest city in Virginia and the center of Tidewater,
Virginia, the most heavily populated area in the state.

The institution was established as the Norfolk Unit of Virginia
Union University in 1935 to provide training on the junior college level
for high school graduates in the Norfolk-Portsmouth area. In 1942, the
Norfolk Polytechnic College was chartered to take over the functions
and assets of the Norfolk Unit of Virginia Union University. In 1944,
the institution became the Norfolk Division of Virginia State College
and in 1956 was authorized to offer junior and senior college curricula
terminating with a Bachelor's Degree. In 1969, the Norfolk Division of
Virginia State College became Norfolk State College, an independent four
year, degree-granting institution with its own Board of Visitors and its
own president.

Norfolk State College now has approximately 5,500 students and 297
faculty members.

Administratively, the institution is divided into ten divisions:

1. Division of Business
2. Division of Teacher Education
3. Division of Humanities and Communications
4. Division of Natural Science
5. Division of Home Economics

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6. Division of Social Sciences
7. Division of Industrial Education and Technology
8. Division of Nursing
9. The Junior College Division
10. Division of Continuing Education

The Division of Teacher Education is made up of four departments:

1. Elementary Education
2. Special Education
3. Secondary Education
4. Health, Physical Education and Recreation

The competency-based teacher education program is, at the present,

restricted to the Department of Elementary Education. There are approxi-

mately 450 students and eleven faculty members involved in this program.

Description of Project

Norfolk State College adopted the following objectives for 1972-

1973:

1. To design, develop, implement, and evaluate modular-
   ized components equivalent to at least five courses.
   These components will be tested by the Teacher Corps
   unit as a pilot, revised, and then incorporated in
   the regular, on-going program.

2. To operationalize two additional portal schools.

3. To establish a network of field experiences for all
   teacher certification candidates.

4. To implement team teaching at the college level "across
   the board."

5. To implement a differentiated staffing pattern in the
   portal schools in at least 50% of the classes.

6. To utilize interdisciplinary teams at the college
   level.

7. To operationalize a community-based component in the
   regular, on-going program.

8. To operationalize a volunteer program.

9. To operationalize a learning center.

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10. To design, develop, and implement a simulation
     center.

The Elementary Education Department at Norfolk State College is
using a Cycle VI Teacher Corps project to test the entire competency-
based program. The management system and modularized delivery system
are being tested, revised, and integrated into the regular program
through this procedure. They have just received funding for Cycle VIII
Teacher Corps which will enable them to further develop and revise all
components under a controlled situation. As components are implemented
in the regular program and evaluated, they can be recycled through the
Teacher Corps project for revision and validation.

Procedures Developed

Norfolk State College is using the Teacher Corps project as the
prime vehicle for initiating change in their Elementary Education pro-
gram. All faculty members in the department are involved in the total
development of the project. The chairman of the department serves as
the director of the Teacher Corps project, and the Program Development
Specialist for the Teacher Corps project serves as Program Director for
the development of CBTE for the department and is the institutional
representative on the Board of Directors of the Consortium of Southern
Colleges. The Associate Director of the Teacher Corps project is the
prime contact person at Norfolk State for the field testing of diag-
nostic-prescriptive techniques (another project of the Consortium of
Southern Colleges) and is the principal liaison between the college
and the public schools for the development of portal schools to serve
all elementary education majors. Through this procedure, the Teacher

Corps project has become an integral part of the department and can
be successfully used as a vehicle to effect change in the entire depart-
ment.

The departmental faculty meets regularly for inservice training.
These sessions include module building, evaluation, and information input
and dissemination. In addition to on campus inservice sessions, repre-
sentatives have been sent to conferences, workshops, and have made site
visits at other institutions involved in competency-based teacher educa-
tion and to public schools that have been designated as portal schools.
Sites visited have included Livingston University, Florida A & M Univer-
sity, North Carolina Central University, Clark College, Xavier University
at New Orleans, Michigan University, Michigan State University, Syracuse
University, University of Georgia, Columbia University, University of
Houston, Temple University, and State University College of New York at
Buffalo.

The faculty development plan has been successful enough for several
of the staff to be used as resource persons and principal presenters at
national, regional and state conferences.

NCS has established a feedback system that provides continuous input
for students, public school personnel, college faculty and staff, and
college administration personnel.

The central administration is constantly, actively involved in the
developmental process and is made aware of the status of each component
as it evolves and is evaluated.

One of the primary goals of NSC during the 1972-1973 year was to
implement the management system used in the Teacher Corps project in
the regular, on-going program in elementary education. In order to do

this, they set up a system in which modules are supervised by designated faculty members, inservice teachers, team leaders (supervisors), the inservice coordinator and a community coordinator. Clinical experiences are required in most modules and are supervised in the same manner as described above. The tutoring program and scheduled "Observation and Participation" sessions have been incorporated into the modular structure and can be managed in the same manner as other modules. Student tracking and faculty scheduling and utilization are controlled manually and will be computerized as they are more firmly established.

In order to manage the logistics of the delivery system, NSC is developing a learning center that will also serve as an operation center for storage of modules, dissemination of modules, scheduling, and eventually module "check out" (testing). The learning center will also coordinate the efforts of the curriculum lab, the audio-visual center, the simulation center and portal school micro-teaching stations.

Discrepancy Analysis

Norfolk State College noted ten objectives for the academic year 1972-1973. Of these, six have been realized and the other four are progressing:

OBJECTIVE
: To design, develop, implement and evaluate modularized components equivalent to a least five courses.

Assessment
: All courses in the professional sequence have been converted to modularized components and incorporated into the on-going program. Over 50% of these components have been tested and revised in the Teacher Corps project and the remaining 50% will be tested in subsequent terms.

OBJECTIVE
: To operationalize two additional portal schools.

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Assessment	This objective has been realized and other sites identified for development.
OBJECTIVE	To establish a network of field experiences for all teacher certification candidates.
Assessment	This objective has been met for elementary education majors. Field experiences are supplied at all levels of professional training including tutoring, observation and participation, and a gradual assumption of teaching responsibilities are provided on a differentiated pattern format.
OBJECTIVE	To implement team teaching at the college level "across the board."
Assessment	All components in the professional elementary education sequence use a team teaching format in the modularized system.
OBJECTIVE	To implement a differentiated staffing pattern in the portal schools in at least 50% of the classes.
Assessment	This objective seems to have been realized. The specific pattern is not final and there-fore, any kind of "percentage" is difficult to determine.
OBJECTIVE	To utilize interdisciplinary teams at the college level.
Assessment	An interdisciplinary approach is used in planning and development. In the instruc-tional base, however, the "interdisciplinary" principle is confined to various areas within the Division of Teacher Education.
OBJECTIVE	To operationalize a community-based component in the regular, on-going program.
Assessment	This component is not fully operational. Some activities have been initiated but to call these a component would be an overstatement.
OBJECTIVE	To operationalize a volunteer program.
Assessment	The volunteer program now in operation is con-fined to the Teacher Corps project.
OBJECTIVE	To operationalize a learning center.

Assessment   A learning center is in operation at Norfolk
              State, but it is not fully developed. For
              further discussion of this component, see
              GOAL III.

OBJECTIVE   To design, develop, and implement a simulation
              center.

Assessment   Simulation activities have been designed,
              developed and implemented but they are not
              as yet centralized or fully coordinated.

Expediting Factors/Problems Encountered

The presence of a Teacher Corps project at Norfolk State College

is one of the primary expediting factors in the development of the CBTE

program there. This project provides funds, materials, supplies, travel,

personnel and other elements necessary for this kind of program and

staff development. The lack of sufficient funds is probably the

largest constraining force.

The greatest single factor associated with the success of the

developmental program is the long hours and hard work of a dedicated

faculty with apparent support and encouragement of central administration.

Evaluation

Even though Norfolk State College has not fully met all objectives

projected for the academic year 1972-1973, they have done a commendable

job of development and implementation. The objectives not fully realized

were readjusted to a more realistic time frame and are being actively

pursued. The funding of a Cycle VIII Teacher Corps project should

provide the impetus for further development of a competency-based

teacher education program.

The present program does not meet all standards of a CBTE program

as defined by AACTE, but given time and opportunity it is evident that

the course structure and time lock of the present system will be
adjusted to meet those standards.

Projections

The project director and faculty anticipate during the 1973-1974
academic year the following activities:

1. Further development of portal schools.

2. Full implementation of a differentiated staffing
   pattern in the portal schools.

3. Evaluation of the volunteer program.

4. Identification and expansion of community-based
   activities in the regular, on-going program.

5. A continual assessment and development of the
   learning center.

6. A refinement of activities within the simulation
   center.

XAVIER UNIVERSITY
New Orleans, Louisiana

Project Director - Sister Maria Petra

Xavier University of Louisiana is a small urban university located
in the heart of the largest city in Louisiana. It is the only American
university operated under Catholic auspices which has a predominantly
black student population. The university is composed of the College of
Arts and Sciences, the College of Pharmacy and Graduate School. The
Division of Education (which encompasses the areas of elementary educa-
tion, early childhood education, secondary education and health and
physical education) is located in the College of Arts and Sciences. The
student population of 1,450 students come from 30 states and several
foreign countries.

Description of Project

During the summer of 1972 the Xavier faculty was engaged in several
CBTE projects such as visiting other schools to observe programs or
components of programs that had been operationalized and in developing
modules for use during the 1972-1973 year. Specific goals were set for
the 1972-1973 year relative to the Xavier CBTE program: (1) continued
development of modules at all levels to be implemented as soon as pos-
sible; (2) to identify and to plan for additional clinical sites to be
utilized by the students in the CBTE program; (3) to review and to re-
work, when necessary, those components that have already been made
operational in the Xavier program; (4) to initiate plans for developing
a Learning Center; (5) to develop a human relations component; (6) to

review and to revise the curriculum for the elementary education program; (7) to develop and to implement a counseling program for students in the CBTE program; (8) to develop a pilot program of CBTE at the graduate level utilizing one graduate course for this; (9) to develop and initiate an intensive inservice program for faculty development via scheduled meetings.

Procedures Used

The research team was utilized in two faculty development conferences. Each of these conferences consisted of a general education faculty and staff meeting followed by individual staff conferences. An additional faculty development program, utilizing Dr. Charles E. Johnson was held during early Spring, 1973. Dr. Donald Cruickshank has also been utilized as a consultant in the area of developing a simulation component for the program.

No new committee structures have been organized in conjunction with the development of the competency based teacher education program. The faculty has been used by other departments on the Xavier campus as resource people to aid in the development of a competency-based program in these other areas. These departments have ranged from Chemistry, English, and Music to Speech. There has also been a CBTE presentation to the total Xavier faculty and staff. The Louisiana Association of Teacher Educators asked the Xavier elementary education faculty to conduct part of the annual state meeting which had as its topic "New Trends in Education."

Discrepancy Analysis

The Xavier program has met and surpassed all of the year's objectives with one exception. The Human Relations component has not been developed. Several of the goals which involved planning have been operationalized into the program. For example, there is in operation a small but extremely functional Learning Center that is well organized with basic media equipment, software development and storage areas, study carrels for individual or small group work and a small collection of filmstrips, films and slides. The organization of this facility will allow future expansion with very little modification of the present plan. Several additional area public school classrooms have been used for clinical sites for students in the program.

Expediting Factors/Problems Encountered

One of the most important factors that has helped facilitate the development and implementation of the Xavier program, according to its director, is the outstanding support it has received from the university administration. The director also cites the aid received from Consortium Central (both in supplies and materials and in general "seed money" funding) and the aid of the research team have helped move the program along at a faster than expected pace. Being able to put all of the professional courses together at the junior year level has also enabled the faculty to develop such components as clinical experiences for the students, but the most continuous and outstanding factor that has been administratively identified as crucial is the willingness of the faculty to work, often on their own time, to develop the program.

Two major problems have been identified by the administration and faculty. First is the problem of maximizing the use of the Learning Center. Due to its limited physical space, activities must be scheduled in this facility. Several alternative patterns have been attempted and none so far has provided the needed solution for this area. The second problem relates to the recycling of students. The scheduling systems that have been attempted do not seem to allow the necessary faculty and student flexibility for this type of activity.

Evaluation

If the Xavier University program were to be placed on Cruickshank's modified schema, it would fall directly on the IMPLEMENTATION phase of program development. All the goals (except the development of the Human Relations component) have been met, and by fall 1973, the total professional education courses will be converted to a competency based approach. However, care must be used to make sure that in these course modules, multisensory learning experiences be utilized to avoid having the product of this approach largely programmed learning.

Projections

During the summer session, there will be a graduate level course offered that will be competency based. This will be the formal pilot to determine if this approach will be utilized with inservice teachers.

It is anticipated by the director that the request for 1/4 release time for one faculty member per term will be granted by the University. This will allow for the systematic review and revision of present program components. Plans are being devised so that during the 1973-1974 year

there will be a more individualized program for students. Initial

data gathering procedures will be refined so as to gather information

on all incoming students for research purposes.

TENNESSEE STATE UNIVERSITY
Nashville, Tennessee

Project Director - Mrs. Elizabeth Reed

Description of Institution

Tennessee State University is a state supported university, located
in the northwest section of Nashville. The central campus consists of
thirty permanent buildings, located on 450 acres of land. The School
of Education consists of eight departments, with the competency based
teacher education program conducted by a director responsible to the
University Director of Teacher Education which involves 14 departments
in the four undergraduate schools.

Description of Project

The TSU project director and faculty had delineated the following
objectives of the CBTE program for the 1972-1973 year:

1. The development of a rationale and general objectives
   for the CBTE program.

2. To identify and staff committees to develop specific
   area components, each with its own projection of ob-
   jectives to be met. The component areas identified
   were (a) Human Relations, (b) Liberal Arts, (c) Pro-
   fessional Core, (d) Teaching-Practice, (e) Evaluation
   and Research, (f) Management and Support Systems,
   and (g) a Steering Committee.

3. To plan and conduct a University-wide faculty program
   on CBTE.

4. To inventory, organize and make available to all pro-
   gram participants a catalog of TSU - CBTE materials
   that have been purchased and/or collected by the
   project.

Each of the Component Committees submitted to the director an out-
line of the component area. The specific area outline contained a
rationale, a listing of human and material resources available, a listing
of human and material resources needed, and a three year projection of
objectives to be reached. These specific projected sub-objectives are:

I. Human Relations: 1972-1973

1. Providing individual and group experiences
   involving self-confrontation, self-realization
   and self-actualization.

2. Building student profiles using specially
   designed questionnaires, self-concept scales,
   interest inventories, demographic data and
   other entry behavior data.

3. Pilot testing some of the hierarchies of the
   self-confrontation domain.

II. Liberal Arts: 1972-1973

   Providing for and supervision of early involvement
   experiences.

2. Conducting "rap" sessions for student evaluation
   of experiences.

3. Scheduling CBTE participants through the Thirteen
   College Curriculum Program.

4. Providing for two major group activities for all
   CBTE participants each quarter.

5. Holding a special day for an on-campus demonstra-
   tion of early involvement experiences.

(. Establishing a tutoring program for participants
   using the services of the Zeta Chi Chapter of Kappa
   Delta Pi honorary society.

7. Evaluation.

III. Professional Core Component: 1972-1973

1. Developing modules within the required courses that
   are designed to achieve essential teacher compe-
   tencies.

2. Developing modules within some of the required courses that are designed to achieve specific teacher competencies.

3. Emphasizing a field center approach in the development of modules.

4. Providing through modularization, opportunities for learning how to use multi-media.

5. Pilot testing all modularized courses (Spring).

IV. Teaching Theory and Practice Component: 1972-1973

1. Modularizing experiences that hopefully will achieve essential and specific teacher competencies through the use of peer teaching, simulation, micro-teaching and small group settings in public schools.

2. Modularizing experiences that will provide opportunity for the cooperative planning for independent teaching in a variety of teaching-learning situations within the local school system.

3. Cooperatively planning for and utilizing a teacher education center for elementary majors.

4. Pilot testing and modularized experiences. (1-2)

V. Evaluation and Research Component: 1972-1973

1. Suggesting and using appropriate instruments for obtaining base line data for participants and analyzing results.

2. Developing models for the process evaluation of each of the components based on their goals, barriers to implementation and results.

3. Providing a systematic and objective evaluation of student qualities on two dimensions: cognitive and affective.

4. Examining the monitoring systems of other successful programs and recommending a system for use at TSU.

5. Developing a working knowledge of the CIPP plan of evaluation in order that the E and R component may communicate effectively with the R and D team of the Consortium.

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6. Designing forms to record the progress of each component in order to facilitate analysis.

VI. Management Support System: 1972-1973

1. Determining the extent to which Competency Based Teacher Education Programs exist or are being developed within regional and local Colleges of Education.

2. Ascertaining the attitude of faculty toward CBTE within the University.

3. Developing an awareness among the faculty of the positions of NCATE, AACTE, ATE and the State Department of Education toward competency based teacher education.

4. Reviewing the analysis of base line data obtained on the CBTE participants.

5. Making a cost analysis based upon program goals, human and material needs and established proposal guidelines.

6. Developing a continuous program of public relations for the CBTE program, the participants, and the developers.

7. Providing the necessary information to the administration, the State Department of Education, financial grantsmen, educational organizations and agencies relative to the goals, needs and progress of the program.

8. Developing a consciousness of the fact that the Teacher Education Department must ultimately assume total financial responsibility for the operation of the program; giving verbal and moral commitment to the efforts of its implementation and being aware at all times as to where the program is and the direction in which it is moving.

VII. Steering Committee: 1972-1973

1. Planning inservice faculty meetings for participating faculty.

2. Planning a presentation for a general faculty meeting.

3. Planning an inservice meeting with selected
   public school personnel.

4. Planning an inservice meeting for the steering
   committee with the Syracuse model builders and
   implementors.

Due to an unforeseen problem during the summer of 1972, students

were not contacted regarding participation in the competency-based pro-

gram. Therefore, a shift in projections regarding implementing compo-

nents or field testing modules had to be made. No specific dates were

projected for these phases of the program.

Procedures Followed

Each research team member visit followed the same format; a confer-

ence with the project director and conferences with various committees

or faculty members. In the committee reports made at these meetings,

there was evidence of planning and the plans covered several types of

contingencies.

During the year, the Liberal Arts faculty involved in providing

course-work in the School of Education were given joint faculty appoint-

ments in the School of Education. In this way, these faculty members

were responsible in their education assignments to the Chairman of the

Department of Curriculum and Instruction. To avoid administrative

divergence and conflict, the departmental chairman assumed responsibil-

ity for supervision of the modularization sections of the competency

based teacher education program. Also, in this way, any faculty re-

sistance to the development of a CBTE program could be handled by an

administrator with University responsibility and authority.

Six modules have been developed and placed in the Consortium

Module Bank. A total of nine research team days were utilized with the

Tennessee State University program.

Discrepancy Analysis

OBJECTIVE   The development of a rationale and general objectives for the Competency Based Teacher Education Program. This objective has been exceeded in that there has been also identified essential program competencies to be obtained by students involved in the CBTE program..

OBJECTIVE   To identify and staff committees to develop specific area components, each with its own projections of objectives to be met. This objective has been partially met in that there has been identified and staffed seven area committees (Human Relations, Liberal Arts, Professional Core, Teaching and Practice, Evaluation and Research, Management and Support, and Steering). However, there are discrepancies in the meeting of the specific area objectives delineated by the Committees, in the component areas. For example, due to time conflicts and other demands on participating faculty, there has resulted a delay in module development. Six modules have been received by Consortium Central's Module Bank.

OBJECTIVE   To plan and conduct a University wide faculty program on CBTE. This objective has been met. Reactions given to the research team member by out-of-the-College-of-Education faculty and staff were very positive and much verbal support of the program was given.

OBJECTIVE   To inventory, organize and make available to all program

participants a listing of Tennessee State University's

Competency Based Teacher Education Program materials

that have been purchased and/or collected by the project.

This objective has been partially met, in that there is

an inventory of these materials and the materials have

been organized in a "mini-center," but the listing of

these materials have not yet been compiled for dissemina-

tion.   It is anticipated that this will be done at the

end of the Spring session, and will be ready for total

distribution in the fall of 1973.

Expediting Factors/Problems Encountered

Several expediting factors have been identified at Tennessee State
which will aid in the development of the competency based teacher educa-
tion program.   There is a working relationship between the faculty in
Education and the faculty in Arts and Sciences.   This is evidenced by
the joint appointment of the liberal arts faculty to the education
faculty, with the responsibility for the education assignments resting
with the Departmental Chairman of Curriculum and Instruction.

Administrative assistance has been reported by the Director in that
the fiscal officer of the institution has asked for budgetary projections
for the competency based teacher education program so that long range
and short range projections of needs can be programmed into the Univer-
sity budget.

The competency-based program has also been allocated a small office to use as a "mini-center" for the storage of materials and supplies collected and/or purchased for the program.

Several problems have been identified by the director which has hindered the development of the competency-based program. First is the lack of support personnel for the program. Such things as basic correspondence has had serious delays, with a letter being typed one day and the envelope several days later. This problem has been partially alleviated by utilizing a business intern.

A more efficient logistical planning pattern must be developed to be used in program planning. This would eliminate such problems as having to cancel the contacting of students last summer due to the fact that there was not an approved appropriation allocation from the Dean's office of twelve dollars. The director has expressed the feeling that this has delayed student involvement in the CBTE program.

Evaluation

Planning strategies have been developed by the faculty at Tennessee State University. The competency based approach has begun in the School of Arts and Sciences. There is need for the education program to develop the competency based program within their own departments, in terms of modularization of the program areas that were projected for 1972-1973. Additional clinical experience sites should be investigated to be utilized in the CBTE program. Plans should be formulated as to how these experiences will be supervised as the students begin to demonstrate their competency in the field.

Projections

It is anticipated that the component area objectives will be
reviewed, time tables for the achievement of objectives revised, and
further responsibilities delineated during the summer and the fall of
1973. This will allow for program development in the School of Educa-
tion. The organization of the various component committees will be
investigated so as to obtain maximum utilization of faculty and faculty
involvement in the development of the program.

JARVIS CHRISTIAN COLLEGE
Hawkins, Texas

Project Director - Dr. M. L. Lanier

Description of Institution

Jarvis Christian College is located at Hawkins, Texas. It is an
independent, private, church related college. It is affiliated with
Texas Christian University. The college has received increased support
from foundations, having received approximately $2,000,000 for the
development of modern campus facilities in the last 5 years. The col-
lege has approximately 700 students and approximately sixty faculty
members. The student body is predominantly black.

Description of Project

Jarvis Christian College adopted the following objectives for 1972-
1973:

1. To begin to identify competencies and to write behavioral
   objectives and modules in elementary and secondary edu-
   cation in the course areas of general methods, reading,
   language arts, children's literature, social studies,
   science, mathematics, health and physical education,
   art and music.

2. To develop a modularized competency based program in the
   teaching of media.

3. To establish a learning center that would contain
   hardware, provisions for creation of software, preview
   room, television for micro-teaching, module storage,
   and curriculum laboratory.

4. To develop a plan for a sequential program in the educa-
   tion of teachers and to begin developing competencies
   and modules for the program.

5. To develop committees to manage the development of compe-
   tencies and modules for the sequential program and to

develop the dates for submission of competencies and modules for adoption into the program.

6. To develop a long range plan for conversion to competency based teacher education by 1975.

7. To plan for the development of public schools for portal schools utilizing the Jarvis Christian College Teacher Center which is part of the Texas Teacher Center Project.

Procedures Developed

Jarvis Christian College began the plans for the design and development of the program in a faculty two-day conference on August 21 and 22, 1972. All members of the faculty were in attendance at this meeting. The President and the Dean of Instruction also attended the conference. The conference began with a general orientation to competency based teacher education. The faculty also engaged in a faculty development workshop relative to the designing and operationalizing of competencies and the development of modules. The faculty also designed a plan for the development and implementation of competencies, and the writing of modules. Committees were established to place the plan in operation and times were charted for various tasks to be completed.

The faculty and administration adopted the sequential plan of teacher aide, tutor, assisting teacher and associate teacher for the development and implementation of competencies. The plan adopted required that thirty competencies would be developed at the aide level by December 20, 1972, and field tested during the second semester of 1972-1973.

Faculty members were requested to begin the development of competencies and to proceed with the development of modules in the framework of the present course structure. The competencies developed were to be

incorporated into the program at the associate teacher level at a later date. The competencies were to be developed in the first semester, 1972 and field tested during the second semester of 1972-1973.

Competencies and modules for the tutor and assisting teacher levels were to be developed during the second semester of 1972-1973 and field tested during the fall of 1973. The plan developed would place the competency based program into operation in the 1975 fall term.

In addition to the committees which were appointed to develop the sequential program described above, a committee was established to review the modules, accept the modules and to incorporate the modules into the teacher education program.

The Jarvis Christian Teacher Center was to plan for participation in the designing of competencies and in-service programs for teachers throughout the service area of the center. The faculty indicated that they felt it important that public school teachers be involved in the development of competencies.

Discrepancy Analysis

The faculty has not been able to adhere to the schedule which they developed in August for the development for the year. Some competencies and modules have been developed or are under development according to information provided to the research team in March, 1973. A summary of the report is provided below:

Department	Modules Completed	Modules Under Development
Art	0	1
Foreign Language	1	1
Music	2	1
Religion	0	2
English	6	2

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Department	Modules Completed	Modules Under Development
Speech	1	0
Mathematics	4	3
Biology	3	2
Chemistry	1	0
Business and Economics	4	0
History and Political Science	2	1
Sociology	1	0
Education		
Educational Media	29	0
Measurement & Evaluation	3	0
Health and Physical Education	0	8
History and Philosophy	0	1
Librarianship	1	0
Educational Psychology	3	0
Developmental Reading	2	0
Teaching Reading in El. School	21	21
Total	84	43

The competencies and modules above appear to have been developed at
all levels in the program. The research team was not provided any com-
petencies or modules designed specifically for the teacher aide or tutor
level.

Personal interview techniques were employed to ascertain how the
learning center was utilized with regard to the modularized program.
Micro-teaching is not employed extensively in the teacher education pro-
gram although there are equipment and studios available for use on the
campus. Two of the modules under development or completed indicate use
of VTR equipment. One of these modules is in the department of education.
Some of the modules and the accompanying software are stored in the
learning center.

Many of the modules developed are programmed learning which may
lead to the attainment of some competency. The competencies have not
been designed. Many of the modules do not follow the format of CBTE as
defined by the Consortium. This is partially due to the use of some

modules developed by Weber State College and experimental modules from Michigan State.

The spring faculty workshop of two days was devoted to the development of the program. During this period, the faculty members worked on the development and competencies and modules.

Administration support of the program appears evident. The Chairman of the Department of Education was given responsibility for the development of the competency based program at the fall conference by the President. The Dean of Instruction was present at the conference. The Chairman of the Department of Education has also been delegated the responsibility for the development of the teacher center.

Expediting Factors/Problems Encountered

Factors contributing to the development of the program are the intense professional commitment of the faculty. The faculty is small; therefore, communication should be less of a problem. Another expediting factor is the administrative support of the development program.

Problems encountered include more exposure to faculty development programs such as the use of micro-teaching techniques, simulation, use of media and the development of competencies. There needs to be a coordinated effort to develop a total Jarvis plan for the training of teachers either through task analysis or by the development of a system of competencies. The learning center needs more space and there is a need for some coordination and planning to create the center as a "hub" in which a competency based program can operate. The curriculum laboratory needs expansion and materials and equipment. Some modules are stored in the learning center but others are located within separate

departments. The college is in need of funds, particularly to continue with the development of the learning center and for the preparation of software for the modules. The termination of the Teacher Center at the close of the 1972-73 school year will provide less impetus to the development of the program.

Evaluation

Jarvis Christian has begun to identify competencies and to write behavioral objectives and modules. Approximately eighty-five modules are under development or have been completed. Approximately thirty of these eighty-five modules are in the area of media and the media program has been competency based. A full-time secretary is needed to assist in the management of the program. Although there are some problems with regard to facilities and budget, the learning center has been established and is functioning.

A plan has been developed for a sequential program for training teachers. The institution has not begun developing competencies and modules following a coordinated plan. A central committee has been established to manage the development and quality of the competencies and modules. Evidence indicates that the committee is not functioning, or at least, there have been no formal meetings of the committee to develop the program.

The dates for the plan for implementation by the Texas Education Agency has been changed from 1975 to 1978. Meetings have been held through the Teacher Center this year. However, no competencies have been provided to the research team that have been developed by this group.

Projection

The faculty and administration at Jarvis Christian College will continue to progress in the development of a competency based teacher education program.

UNIVERSITY OF SOUTH ALABAMA
Mobile, Alabama

Dr. Howard Fortney - Consortium Representative
Dr. Wilma Schriver - CBTE Committee Chairman

Description of Institution

The University of South Alabama, located on a 1200 acre campus in west Mobile, was created by an act of the Alabama State Legislature in May, 1963. Under the present organization, there are four Colleges (Arts & Sciences, Business and Management, Education, Medicine) and one division (Engineering). Within the College of Education there are seven departments and the Center for Program Development and Special Projects. The Competency Based Teacher Education Program will be an interdepartmental and intradepartmental program covering all areas of study.

Description of Project

The 1972-1973 year was the initial associate membership year in the Consortium of Southern Colleges for Teacher Education; therefore, the project objectives were limited in nature. The focus of the faculty and staff of the College of Education was on obtaining basic data on competency based teacher education and the identifying of institutional patterns and procedures that could be utilized in developing a CBTE program. Several departments of the institution volunteered to begin the identification of specific competencies.

Procedures Used

At the beginning of the fall quarter, a faculty development conference was conducted by the research team aimed at providing the

College of Education faculty and staff with the basic concepts and elements of competency-based teacher education. Shortly after this faculty development conference, a one day retreat was held. Several decisions were made by the faculty at this time; first, that a "broken front" approach would be utilized to develop the CBTE program. Six of the seven departments of the college (elementary education; secondary education; health, physical education and recreation; counselor education; educational media; and special education) would begin to develop competencies within their own departments, with the remaining department (foundations of education) working with other departmental committees. The staff of the Center for Program Development and Special Projects will also work with departmental committees. The second decision was an agreement to submit a Cycle VIII Teacher Corps proposal, which, if funded, would serve as the beginning of a sequential conversion process for the total teacher education program to CBTE.

Each department has been scheduling periodic meetings throughout the year, reviewing current literature in their field on CBTE and identifying core competencies. Several departments have begun initial field components or have developed modules within courses. For example, the counselor education program has initiated simulation activities into their program beginning with the introductory course work. In elementary education, a pilot group of 41 students were introduced to the concept of CBTE in the area of Children's Literature. A specified competency was required and a sequence of four enabling modules was developed that students could utilize to attain the specified competency.

A review of present field experiences has been made in terms of location, types of activities to be carried on, and plans made for the

supervision of students on site. Several of the departments have revised the reporting forms used with such clinical experiences.

A Liaison Committee has been established for Competency-Based Teacher Education, consisting of one representative of each of the College of Education departments. This committee is charged with the goal of designing and developing the CBTE program at the University. This committee has assumed its responsibility by publishing a Newsletter for the faculty and staff containing information on CBTE publications and materials. The committee has also coordinated a second, one-day retreat for the faculty during the spring of 1973. Dr. Charles E. Johnson, of the University of Georgia, was the featured speaker and provided input for program development in CBTE.

A total of seven research team days have been devoted to the development of the South Alabama program.

Discrepancy Analysis

All of the initial project goals for the University of South Alabama have been met. Necessary basic data has been gathered. In the Education Curriculum Library a collection of materials and resources on CBTE has been developed. This collection is being catalogued and made available to all University of South Alabama faculty, staff and students. The institutional pattern for training teachers has been identified for the development of the program and has been operational-ized by means of the Liaison Committee, representing the various education departments.

Expediting Factors/Problems Encountered

The major expediting factor that has allowed much of the program development has been the initiation of the Teacher Corps Cycle VIII proposal. In developing the proposal, the faculty has focused on the development of the CBTE program in a sequential manner and has had to begin to identify needed competencies for proposed Corpsmembers.

The State Department of Education mandate regarding the adjudication of competency before certification has also been an expediting factor in the CBTE program. University administrative assistance for development of the program is evidenced by releasing faculty and staff for two "retreat days" and appointing nominated departmental representatives to the CBTE Liaison Committee.

Evaluation

As the newest school associated with the Consortium of Southern Colleges for Teacher Education, the University of South Alabama has made excellent progress during the past year. If placed on the modified Cruickshank schema, it would fall between the DESIGN and DEVELOPMENT stages of program development. There has been inter- and intradepartmental faculty exchanges and meetings in the School of Education to facilitate program development. Administrative assistance has been evidenced in several ways.

Projections

With the funding of the Teacher Corps project (Cycle VIII), there will be implementation of several components of the CBTE program during the 1973-1974 year. Additional field experiences will be developed for use by students in the regular elementary and secondary programs.

Investigation will be made into the utilization of clinical professors

to supervise the field experiences and to adjudicate the competencies

of the undergraduates.

SHAW UNIVERSITY
Raleigh, North Carolina

Project Director - Dr. N. M. McMillan

Description of Institution

Shaw University is located in downtown Raleigh, North Carolina.

It was founded in 1865 and has a long tradition in the training of

teachers. It is a co-educational, liberal arts college enrolling

approximately 1,000 students. Teacher education has been deemphasized

in recent years, with the college concentrating on liberal arts. It

graduates approximately one hundred teachers each year.

Description of Project

The project director and staff at Shaw University developed the

following objectives for the 1972-73 year:

1. To develop and implement a plan for competency based
   teacher education at Shaw University to meet the requirement
   of the North Carolina State Department of Public Instruction
   for conversion to CBTE by 1980.

2. To engage in a faculty development program in CBTE so that
   the faculty would be cognizant of the technique of develop-
   ing competencies and modules.

3. To develop competencies and modules suitable for a CBTE
   program.

Procedures Followed

Shaw developed its plan for the year utilizing the research team

as consultants in working with the project director and with the

director of development at the university. The plan involved the fol-

lowing activities:

1. Planning meetings with the research team, project director, and director of development.

2. Conducting a retreat of selected faculty members to orient the group to CBTE and to establish committees to develop and implement a plan for CBTE.

3. Conducting a conference for the entire faculty of the university to orient them to competency based teacher education.

4. To have the committees develop competencies and modules for competency based teacher education.

The research team scheduled ten consultant days to assist in the attainment of the objectives.

Discrepancy Analysis

The faculty has been unable to develop the competencies and modules for the competency based program in the spring of 1973. The committee will continue to work on this aspect of the program during the summer of 1973 and be ready to implement a pilot program in the fall of 1973.

Expediting Factors/Problems Encountered

An expediting factor at Shaw is the rapport of the faculty and the interest of the committees in establishing CBTE at Shaw. The faculty has a sense of responsibility for the institution and its program.

Shaw University has suffered financial reverses in the last two years. Because of the lack of funds, approximately twenty faculty members have been dismissed. Another problem was the sudden death of the head of teacher education. These two factors created a situation in which the department of teacher education lost its entire faculty, with the exception of the project director. The faculty members who left were replaced with part-time faculty members. This has not produced a situation which is conducive to program development. In addition,

these problems also served to stifle the development of the CBTE

programs that had been planned previously.

Evaluation

A plan was developed by a group of the faculty at a retreat held

on March 23 and 24.

The group decided that implementation of Competency Based Teacher

Education at Shaw University should start with the professional program

which would include the following areas and courses:

Methods in the following areas:

    Early Childhood Education
    Elementary Education
    Secondary Education

Professional Courses:

    Introduction to Education   Elementary Health, Physical
    Educational Psychology   Education and Recreation
    Adolescent Psychology   Secondary Health, Physical
    Child Psychology   Education and Recreation
    Role of the Teacher   Teaching Individual, Dual
    Media   and Team Sports
    Educational Seminar   Adaptative Physical Education

Schedule for Implementing a Competency Based Teacher Education

Program at Shaw University:

Remainder of 1973   1973-1974

Appointment of committees to   Continue development of modules
develop modules (start) for
professional courses

1974-1975   1975

Pilot programs   Operational in professional
                                     sequence

1975-1976   1978

Begin development in School   Program will be operational in
of Arts and Sciences   all areas.

Levels will be used as published in the 1971 Model that are
roughly comparable to the Teacher Aide, Tutor, Assistant Teacher,
Associate Teacher, and Student Teacher (Levels I, II, III, IV, V).

The following committees were appointed and the responsibilities
delineated as follows:

Levels Committee

1. Write job descriptions for Levels I, II, III, IV and V.
2. Delineate competencies.
3. Write modules.
4. Request modules from other faculty members.

Evaluation Committee

1. Plan procedures for acceptance of competencies.
2. Plan evaluative procedures for testing of competencies and
   modules.

Clinical Experience Committee

1. Get commitment from the superintendents for clinical expe-
   riences.
2. Logistics
   a. Transportation
   b. Supervision
3. In-service education for teachers in school.
4. In-service education for administrators.
5. Work in conjunction with Raleigh Consortium of Colleges.

Learning Center Committee

1. Define and identify site.
2. Plan facility
3. Plan for personnel
4. Plan for budget.
5. Secure materials
   a. Videotape recorders
   b. Studios
   c. Carrels
   d. Curriculum laboratory
   e. Media center
   f. Preview room
   g. Preparation of software
6. Develop policies

A faculty development conference was scheduled for the entire uni-
versity faculty so that they would be aware of the movement toward CBTE.

There is already some development of CBTE in the arts and sciences areas. The science department is developing a modularized science program in general education under the auspices of a grant from the National Science Foundation.

The objective to develop competencies and modules has not been met. There have been no competencies or modules developed in the area of teacher education.

Projection

Barring further financial difficulties and loss of trained faculty in CBTE, it would appear that CBTE can become a reality at Shaw University. The faculty is enthusiastic and responsible and, if the committees adhere to their function, the framework has been established to develop the program.

CLARK COLLEGE
Atlanta, Georgia

Project Director - Mr. John Thompkins

Description of Institution

Clark College is located in Atlanta, Georgia. It is a private church affiliated institution and is part of the Atlanta University Complex. This affiliation enables the institution to share resources and facilities with a number of colleges and universities located in this area. The institution has an enrollment of approximately 1,000 students, and can be classified as a predominately black school. The college concentrates in the areas of liberal arts and teacher education.

Description of Project

Clark College established the following organizational chart in 1971 as the model for CCTEM (Clark College Teacher Education Model). (See Figure 1, following page.)

The following competencies were established in that same report:

Competency No. 1: The student should demonstrate that he is an acceptable, adaptable, and productive person. When a pros- pective teacher has this competency he has acquired those behaviors which demonstrate that he accepts himself and is aware of his own values and at the same time is cognizant that other individuals/groups may hold contrasting values which must be understood and respected.

Competency No. 2: The student should acquire an awareness, a concern, and a sense of responsibility in regard to perennial human problems, contemporary events, issues and problems by studying languages, the humanities*, social and natural sciences, ancient and/or modern civilization, and profes- sional/specialized education courses.

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*The humanities core is being revised. It will probably include traditional as well as nontraditional humanities courses.

FIGURE 1

ORGANIZATION CHART FOR
THE PROFESSIONAL EDUCATION COMPONENT

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                    ┌──────────────────────────────────┐
                    │           FRESHMAN YEAR           │
                    │                                   │
                    │       Foundations of Learning     │
                    │       Educational Environment     │
                    │            Career Choice          │
                    └──────────────────────────────────┘

  ┌───┐      ┌────────────────────────────────────┐      ┌───┐
  │ S │      │          SOPHOMORE YEAR            │      │ C │
  │ E │      │                                    │      │ L │
  │ L │      │      Introduction to Education     │      │ I │
  │ F │      └────────────────────────────────────┘      │ N │
  │   │                                                  │ I │
  │ C │      ┌────────────────────────────────────┐      │ C │
  │ O │      │            JUNIOR YEAR             │      │ A │
  │ N │      │                                    │      │ L │
  │ C │      │   Human Growth and Development     │      │   │
  │ E │      │      Educational Psychology        │      │ L │
  │ P │      └────────────────────────────────────┘      │ A │
  │ T │                                                  │ B │
  │   │      ┌────────────────────────────────────┐      │ O │
  │   │      │            SENIOR YEAR             │      │ R │
  │   │      ├──────────────────┬─────────────────┤      │ A │
  │   │      │    Curriculum    │                 │      │ T │
  │   │      │ School and Society│ Student Teaching│      │ O │
  │   │      │      Media       │                 │      │ R │
  │   │      └──────────────────┴─────────────────┘      │ Y │
  │   │                                                  │   │
  │   │        ┌──────────────────────────────┐          │ E │
  │   │        │     Analysis of Teaching     │          │ X │
  │   │        └──────────────────────────────┘          │ P │
  │   │            ┌────────────────────────┐             │ R │
  │   │            │      Microteaching     │             │ I │
  │   │            └────────────────────────┘             │ E │
  │   │              ┌──────────────────┐                 │ N │
  │   │              │    Simulation    │                 │ C │
  └───┘              └──────────────────┘                 │ E │
                                                          │ S │
                                                          └───┘
              ┌──────────────────────────────────┐
              │      PROFESSIONAL DEVELOPMENT      │
              │              (1 - 3)              │
              └──────────────────────────────────┘
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Competency No. 3: The student should be able to identify the theoretical basis undergirding professional knowledge and demonstrate that he/she knows how to use it as well as evaluate its use in real life situations.

Competency No. 4: The student should demonstrate that he knows how to acquire knowledge and how to use it. With this competency a prospective teacher should be able to acquire the skills to help him learn for himself that which is needed to become a "lifetime student." Further, students should realize the total teacher education experience as being coherent, cumulative, and unified.

Competency No. 5: The student should be able to demonstrate that he is competent to handle responsibly controversial issues as they might arise. With this competency the prospective teacher should be able to do the following: (1) create in the classroom an atmosphere of freedom for students to raise questions dealing with critical issues of the time; (2) be able to express his or her opinions on controversial issues substantiated by facts and/or credible evidence; (3) uphold, protect, and defend the fundamental freedoms as documented in the history of our country.

With regard to the projected plans Clark College developed the following objectives for 1972-1973:

1. To develop sub-competencies relating to the above list of competencies or to operationalize the competencies.

2. To develop and to utilize a modular approach leading to the attainment of competencies.

3. To continue coalitions which assist in the development of competency based teacher education.

4. To develop and to implement a series of clinical experiences which relate to the above model and to the competencies.

5. To develop simulated experiences relating to the competencies.

<u>Procedures Developed</u>

The Department of Education initiated the following mini-project in December, 1972:

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<u>Mini-project Report (Clark College)</u>

Project Title: Identifying Characteristics of Elementary School
                 Teachers That Enhance the Learning Process of
                 Elementary School Children.

Purpose: (1) To provide data that can be utilized by the Clark
             College Elementary Teacher Education Model (CCETEM)
             that will aid in preparing teachers that are more
             knowledgeable of child development and the learning
             process.
         (2) To place beginning elementary education majors
             (freshmen) in learning situations to learn about
             themselves and children.
         (3) To analyze the role and function of the teacher.
         (4) To identify problems that children have in school and
             out.
         (5) To provide students with an opportunity to disprove
             the myths that exist in the literature relative to
             Black children in inner city schools.
         (6) To evaluate busing (desegregation) in terms of pupil
             growth (to include the three domains of learning).
         (7) To ascertain if teaching is really what they want to do.
         (8) To bridge the gap between the college classroom and
             the real world.
         (9) To give college students an opportunity to do active
             research.

Procedure:

     Six elementary education majors (freshmen) were chosen randomly
to participate in a tutorial program in the inner city. Each student
was enrolled in the introductory course of their major. Each student
spent approximately 2 1/2 hours per week for twelve (12) weeks tutoring
elementary school students.
     The elementary school students (Black) were not selected but as-
signed by presence. These elementary school students were being
bussed daily to white schools outside of their community.
     Each college student worked with a small group of children, usu-
ally consisting of 4-5 children.
     It may be of interest to note that the school (where the tutoring
classes were held) was the same school where most of the students were
transferred from.
     The college students were to help the children with academic
problems mainly in reading, arithmetic and science.
     A log was required by the college students to include their
observations related to each child they tutored. They were used to
observe particularly the child's behavior before, during and after
each session. After each session, the college students discussed
their experiences with the principal investigator.
     In addition, the principal investigator observed the students
during the tutoring sessions.

Also, college students were required to write an analysis of
what they experienced and what they felt teachers needed to know
about these children in order to enhance their learning.

Results:

Each college student has been interviewed by the principal
investigator; logs and additional information have been collected;
however, the data has not been compiled and will be forthcoming as
soon as possible.

In addition to the above mini-project, some simulated experiences

were designed in conjunction with an early childhood center in which

young children were brought to the campus periodically. Video taping

equipment was utilized as the college students worked with the young

children. The tapes were analyzed in order to improve teaching styles.

Discrepancy Analysis

The faculty has been unable to develop sub-competencies relating

to the competencies delineated in the projected plan. Personal inter-

view techniques with the project director indicated that no modules have

been written this year. Some modules have been written in previous

years and are still in use. The project director has been working this

year with the University of Georgia (Atlanta) Teacher Corps Project

in conducting on-site instruction for interns in public schools. This

program is to be competency based; however, no competencies were

provided.

Expediting Factors/Problems Encountered

Clark College is very small and the faculty in the department of

education have offices very close to one another. Communication should

be no problem. The office of the chairman of the department is lo-

cated in this same suite. The college has recently acquired some new

facilities in the area of media and learning resources. This center is located in the new science building. The director indicated that some problem had been encountered relating to the lack of funds. It was not possible for the research team to interview the chairman of the department of education.

Evaluation

Clark College has developed a series of clinical experiences for elementary teachers. The clinical experiences have been successful as revealed in interviews with principal and teachers in the public schools. In addition, simulated teaching experiences are provided in an early childhood center.

The college did not meet the objectives relating to the specification of competencies and to the development of a modular approach. The research team was provided with the following syllabus:

Name of Course — Early Childhood Curriculum

Instructor — John H. Thompkins

Department — Education

1. Course Objectives

   Students will be able to help children to:

   1. Use and manage their bodies with more skill and a growing sense of achievement and confidence, and develop healthful habits of play, rest, elimination, and eating;

   2. Extend their interest and understanding of the world about them by investigating and experimenting, and by thinking about some relationships they discover in their environment;

   3. Work and play productively with other children, acquire some independence, and communicate their feelings with other children and adults;

   4. Express themselves creatively and spontaneously through art (building, modeling, painting), music (rhythms, singing), and language (conversation, storytelling, and dramatic play);

5. Enjoy browsing, listening, observing, exploring, making plans, discussing experiences, and accomplishirg tasks important to them;

6. Grow into a deeper sense of accomplishment and self-esteem.

1.2 Purpose Taken From the Institutional Self Study - 1968

1. To reach and/or improve all basic skills of communication (viewing, listening, speaking, reading, writing) that are requisite for coping with the explosion of knowledge and ideas in a rapidly changing society.

2. To form the habit of using the method of scientific inquiry as a basis for developing critical thinking abilities and making judgments.

3. To develop study skills essential to optimum learning that will continue after graduation from college.

4. To learn and understand discipline and Elementary and Early Childhood Education by studying its: facts, concepts structure, principles and social implications.

Departmental Objectives

1. To develop those behaviors which might assist students in becoming productive, coping, professionally oriented teachers in a pluralistic society.

2. To provide prospective teachers opportunity to gain knowledge of certain professional understandings (Child Growth and Development) and "know-how."

3. To develop some strategies for dealing with interpersonal relationships and/or group dynamics in a most positive manner.

1.3 How Does This Course Relate to Other Courses in the Department

This course, Early Childhood Curriculum, provides the basic framework of Early Childhood Education. This course is basic to all other courses in the department. Special emphasis is placed on child development and psychology. It is from this course that specific knowledge, concepts, principles and competencies are derived that will enable students to perform/understand better in future education courses and/or teaching/learning situations.

2. Basic Concepts and Skills Relative to Content and Teaching Strategy

Concepts:

(a) History of education
(b) Philosophy and aims of Early Childhood Education

(c) Administrative and curriculum

(d) Education as a profession

Skills:

(a) Critical reading, thinking and discussion skills in Early Child Education

(b) The ability to locate information on Early Child Education

(c) The ability to select and evaluate materials in Early Childhood Education

(d) The ability to organize Early Childhood materials

(e) The ability to give oral and written directions

(f) The ability to handle responsible controversial issues as they might arise particularly in Early Childhood Education

(g) The ability to understand himself in relationship to his environment

(h) The ability to help children develop wholesome "self concepts"

Method of Instruction - Teaching Strategy

(a) Class discussion

(b) Individual/group projects/reports

(c) Selected reading assignments other than textbook

(d) Field trips to various elementary schools, nurseries, day care centers

(e) Use of films, tapes, and other educational media

(f) Use of regular (non-college) day care and nursery personnel

(g) Lecture and demonstration

(h) Observation of children in pre-school settings

(i) Examination

2.1 The teacher will use a combination of both inductive and deductive procedures in problems solving to assist students in discerning the component parts of education as a discipline.

3. Course Content Related to Identified Talents

(a) Academic - observable knowledge of subject area.

(b) Communicative - through discussing, writing, recording, debating, reading, and listening, the student will enhance his communicative skills and ability.

(c) Decision Making - the student will decide the following:
   (1) What he wants to read/report/write on
   (2) Project(s)
   (3) Site visits
   (4) Content of course
   (5) Evaluation

(d) Predicting - Because the student had had certain experiences, he can predict with little difficulty the following:
   (1) What he really wants to do
   (2) Where he wants to go
   (3) What really makes him "feel good"
   (4) What and/or how he feels about children

(e) Creativity — The student will have opportunity to develop himself concerning society and recommend changes for the betterment of man. Each student will be given an opportunity to create, design, and demonstrate a teaching aid.

3.1 Provisions for Individual Differences

Students will be provided with experiences that will meet their level(s) of achievement. Class activities/experiences will be programmed according to individuals and not groups. However, there will be group activities and projects.

3.2 Library Use

Students will be required and encouraged to use the library regularly based upon assignments, activities and projects.

4. Student Achievement

Course objectives may/may not change according to the performance of students. Evaluation will be determined by the following:

(a) Performance with children   — 25%
(b) Discussion   — 25%
(c) Group project(s)   — 5%
(d) Class Participation   — 5%
(e) Individual assignments   — 5%
(f) Field trips   — 15%

Note: Particular attention will be placed upon the cognitive, psychomotor, and affective domains.

The syllabus seems to indicate that the college program is an excellent conventional program with clinical experiences. However, the question is how the clinical experiences relate to the attainment of competency if the competencies are not delineated. The lack of the development of a modular defining system and the lack of specified competencies would seem to suggest that the program is not proceeding in the direction of CBTE as defined by the Consortium or by the literature.

NORTH CAROLINA CENTRAL UNIVERSITY
Durham, North Carolina

Project Directors: Dr. Norman C. Johnson
and Dr. C. James Dyer

Description of Institution

North Carolina Central University is a five-year, state-supported

college chartered to provide instruction in the arts and sciences; to

train teachers, supervisors, and administrators for public schools; and

to provide such graduate and professional training as approved by the

Board of Education. The forty building campus is located on a 72 acre

plot in Durham, North Carolina, an urban area which has a population of

100,000.

The student body of North Carolina Central University consists of

approximately 3,700 students, the majority of whom are black, recruited

largely from the North Carolina public schools.

The institution was chartered in 1909 as a private institution and

was known as the National Religious Training School and Chautauqua. The

early years of the institution were characterized by a wealth of en-

thusiasm and high endeavor, but not of money. In 1915 the school was

sold and reorganized, then becoming the National Training School.

In 1923 the school was purchased by the State and became Durham

State Normal School. Two years later in 1925, it was converted into

the North Carolina College for Negroes.

The first four-year college class was graduated in 1929.

Description of Project

North Carolina Central University adopted the following objectives

for 1972-73:

1. To field-test, evaluate, and revise three modularized introductory courses in the professional sequence and the senior semester student teaching block.

2. To develop a management system.

3. To continue faculty development.

4. To expand the services of a learning laboratory.

5. To develop and implement a human relations component.

6. To plan for the development of portal schools.

7. To develop a system for student evaluation of modules, components, and clusters.

North Carolina Central University serves as Consortium Central for

The Consortium of Southern Colleges for Teacher Education (see Goal II).

This function adds duties and objectives in addition to the ones listed

above.

Procedures Developed

The major concern of the Competency-based program at North Carolina

Central University during the academic year 1972-1973 has been the field

testing and revision of a four-year sequence of field experiences that

is designed to prepare teachers who demonstrate their competency in

terms of agreed upon behaviors. This necessitates a continuing in-

service training of college personnel in terms of management design,

evaluation techniques, curriculum development and instructional material

development or acquisition. This in-service activity at NCCU is accom-

plished through institutes, workshops, conferences, and site visits.

Site visits within the Consortium have included Livingston University,

Florida A & M University, Clark College, South Carolina State University.

Site visits outside the Consortium have virtually covered the nation.

In addition, North Carolina Central University has been visited by representatives from almost every institution in the Consortium.

North Carolina Central University has developed a system for student evaluation and input. This system allows for a two day session each term for student reaction and interaction.

The feedback from the public schools, to this point, has been on an informal basis but very positive and very encouraging.

The administration within Teacher Education is very actively involved in the development of the competency-based program. The head of the department serves as the institutional director for CBTE, is the institutional representative on the Board of Directors for the Consortium of Southern Colleges for Teacher Education and serves as Chairman of that Board. The coordinator for elementary education at North Carolina Central University serves as Director for the Consortium on a half-time basis. Both of these individuals have been used extensively, nation-wide as consultants for programs developing a competency-based teacher education model.

Discrepancy Analysis

North Carolina Central University listed seven major objectives for the 1972-1973 academic year. All of these objectives were realized, at least to some degree.

Objective 1: To field test, evaluate, and revise three modu-
larized introductory courses in the professional
sequence and the senior semester student teaching
block.

Assessment: All the students enrolled in elementary education at
North Carolina Central University are processed

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through these areas in sequence. To date, fifty-eight students have gone through the modularized senior semester student teaching block. All three areas are constantly revised to reflect the evaluative data.

Objective 2: To develop a management system.

Assessment: (1) NCCU has instituted a computerized program for tracking students.

(2) They have developed faculty "teams" for cluster administration.

(3) They are experimenting with feedback systems.

Objective 3: To continue faculty development.

Assessment: The entire elementary education faculty was afforded the opportunity to participate in seminars, conferences, workshops and site visits. In addition, outside consultants were brought on campus for specific areas of concern.

Objective 4: To expand the services of a learning laboratory.

Assessment: NCCU has put forth an effort to expand the hardware for a learning laboratory. They are moving toward an operations center concept. They are, however, severely hampered by space problems. The space allotted at the present time is not sufficient for an operational learning laboratory.

Objective 5: To develop and implement a human relations component.

Assessment: The human relations component at NCCU is to be "streamed" throughout the four year program. The

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development of this program is near completion and should be operationalized in the 1973-74 academic year.

Objective 5: To plan for the development of portal schools.

Assessment: The plans for the development of portal schools are not firm at this writing. They do plan to be operational sometime in late 1974.

Objective 7: To develop a system for student evaluation of modules, components, and clusters.

Assessment: NCCU schedules two days each term for student evaluation of modules, components, and clusters as well as the program in general.

Expediting Factors/Problems Encountered

One of the greatest influences on the development of a competency-based teacher education program at North Carolina Central University appears to be the fact that Consortium Central is located there. This seems to be both an expediting factor and a problem. It affords access to materials and information but at the same time is a drain on human resources. Much of the time of the members of the development staff also involved with Consortium Central is taken up with administrative details of the Consortium (see Goal II for further discussion).

Another problem referred to earlier is the rather severe lack of space on campus. There is very little space that can be allocated for individual student activities.

Probably the greatest expediting factor is the enthusiasm of the faculty. They have shown a willingness to work long, hard hours.

Evaluation

North Carolina Central University is making significant progress
in the design, development, evaluation and implementation of a competency
based teacher education program. The program does not as yet meet all
the elements for CBTE as defined by AACTE but they are making deliberate
progress toward those standards.

Summary, Conclusions and Recommendations

Summary

The Consortium of Southern Colleges for Teacher Education was funded by the National Center for Educational Research and Development (National Institute for Education) for a proposal entitled Development and Effectiveness of Competency Based Teacher Education Programs in Emerging Institutions. The consortium employed a research team to develop the objectives in the project in working with Consortium schools. The research team, with the aid of consultants, grouped the objectives presented in the original project into four major "goals." The first goal was "to design, develop, implement, and evaluate competency based teacher education programs at Consortium schools." The procedures developed for attaining the goal provided for latitude among the consortium schools and utilized the Cruickshank design and Stufflebeam's CIPP Process as guides in developing the process for fulfilling the goal.

The consortium research and development team traveled to the consortium schools and assisted in setting up the objectives for each school for the year. Once the objectives had been delineated, the R & D team assisted the schools in faculty development programs at the director's invitation in order that each school might reach the objectives delineated for the year. The R & D team also provided assistance to the schools in the solving of problems associated with the development of the programs.

A report on the objectives for the year of each school within the Consortium has been provided and an analysis completed relative to the progress of each school in the attainment of those objectives. A

SUMMARY OF RELATIVE PROGRESS OF COLLEGES IN THE
SOUTHERN CONSORTIUM IN THE INITIATION OF
COMPETENCY BASED TEACHER EDUCATION

NEED	DESIGN	DEVELOPMENT	IMPLEMENTATION	EVALUATION
(Original Consortium Schools)		Jarvis Christian College Shaw University Tennessee State University Clark College	South Carolina State College Florida A & M University Xavier University	Norfolk State College North Carolina Central University Livingston (Withdrawn)
(Member of Consortium 1 year) (Active)		Prairie View A&M College	Pembroke State University	
(Associate)		University of South Alabama		

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summary of the relative progress of each school is provided by the chart on page 125.

The chart of the relative progress of the schools reveals that Norfolk State College, North Carolina Central University, Xavier University, Pembroke State University, South Carolina State College, and Florida A & M University are in the implementation and evaluation stages. All of the other schools are in the developmental stage. It should be noted that Prairie View A & M College, Pembroke State University and the University of South Alabama have been members of the consortium for only one year.

Conclusions

The following conclusions have been drawn by the research team from the experience of working with the consortium of schools this past year:

1. Progress in the adoption of programs at a college seems to be related to the amount of involvement and commitment of the faculty. Those colleges which were the most successful in fusing even very small groups of faculties into working teams were those schools that seemed to get the most commitment and, therefore, the most progress.

2. There does not seem to be a relationship between the wealth of a college and the development of competency based programs. Some of the poorest colleges made the most progress. There is a point, however, in which relatively small sums of money, primarily for equipment and software, can make a very great difference in the progress of a program, once that program is under development.

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3. Those colleges that have made the most progress seem to have administrative heads that are very closely related to the development of competency based teacher education. The administrative head should be closely involved with the program and work closely with the faculty as they develop the program. Administrative commitment to the development of the program and support for the program development is essential for progress. Those colleges who had faculty members without administrative responsibilities directing the project made less progress generally than other schools.

4. The assistance provided by Consortium members was essential to the new schools admitted to the Consortium. Those schools that made the most use of consortium developed materials and the expertise of the other schools in the Consortium made the most progress in the development of their own programs. Some of these schools surpassed some of the original Consortium schools in the development of programs.

5. Faculty development is essential to the development of competency based teacher education. College faculties require in-service education at every phase of the development. The concepts utilized in competency based programs require a complete reorientation of the college faculty as well as re-training programs for college faculties.

6. It would appear that there are phases through which a faculty proceeds as they develop competency based programs. The first phase can be described as one of establishing communication with one another, learning to work in teams, and establishing

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security relative to experimentation. The research team feels
that there are other phases, but that these phases are less
well-defined at this point.

Recommendations

1. The establishment of consortium of colleges for the development
    of competency based teacher education appears to be a viable
    means of gaining impetus for the development of programs in
    colleges and universities.

2. Further studies should be initiated into curriculum change in
    college instruction in order to determine if a planned program
    for change can be derived which can be utilized by colleges
    and universities in attempting to improve their programs.

3. The federal government should consider the advisability of
    providing relatively small sums of money to colleges and
    universities for equipment and software that are related to
    the development of competency based teacher education. The
    money for equipment should be attached to faculty development
    programs with follow-up research in order to ascertain if the
    faculty development programs have resulted in behavioral
    change.

4. The directors of projects for competency based teacher education
    shou.d have administrative responsibility but should demonstrate
    that the primary administrative responsibility is for the de-
    velopment of programs. The administrators must be actively
    involved in the development of a competency based program.

CHAPTER TWO

GOAL II

TO DESIGN, DEVELOP, IMPLEMENT AND EVALUATE IMPROVED
CONSORTIUM ORGANIZATION AND SERVICES

Introduction

Ten teacher training institutions in the Southeastern United

States banded together voluntarily in order to assist each other in

the development of competency based teacher education programs. This

original group of participants selected the name of the Consortium of

Southern Colleges for Teacher Education. In order to have a centralized

office to handle fiscal and communication matters, the member school

directors elected to name North Carolina Central University as Con-

sortium Central.

Personnel identified with Consortium Central during the 1972-1973

year are: (1) Dr. Norman C. Johnson, Chairman of the Consortium Board

of Directors (North Carolina Central University); (2) Dr. C. James

Dyer, Director of the Consortium (North Carolina Central University);

(3) Mrs. Martha knight, Administrative Assistant to the Consortium

Director and Cooperative Research Project Assistant (North Carolina

Central University); (4) Mrs. Laverne Dorsey, Consortium Central Secre-

tary (North Carolina Central University); (5) Dr. Howard M. Fortney,

NCERD/NIE Research Project Director (University of South Alabama);

(6) Dr. Freda C. Judge, NCERD/NIE Project Program Specialist (University

of South Alabama); (7) Dr. Erby C. Fischer, Cooperative Research Project

Director (University of South Alabama); (8) Mrs. Hazel Waite, Secretary

to the Research Team (University of South Alabama). Two additional

people have been connected with Consortium Central by virtue of being

Technical Assistance Program Associates and partially subsidized by
the Consortium--Mrs. Edwina Battle at Norfolk State College and Miss
Lisa Baldonado in Massachusetts.

Statement of the Problem

The second major goal of this research project is "to design,
develop, implement and evaluate improved Consortium organization and
services." Before this goal could be considered, the Consortium organi-
zation and services had to be identified. An investigation of the
structure and services of Consortium Central was conducted. In addition,
an investigation to identify the role and responsibility of Consortium
Central to member Consortium schools was completed.

Definition of Terms

1. Consortium Central - the designation of the central office of
    the Southern Consortium of Colleges for Teacher Education set
    up at North Carolina Central University, Department of Educa-
    tion, to handle fiscal communication and development matters
    for the network of member Consortium Schools. It was estab-
    lished at this location by the Executive Committee with the
    approval of two thirds of the active membership.

2. Chairman of the Board - an officer of the Consortium elected
    by a two thirds ballot of the Board of Directors. The Chairman
    is empowered to transact the general business of the Consortium,
    authorize consultative services and contacts by the Director,
    subject to the approval of the Board.

3. Director of the Consortium - serves as secretary-treasurer of
    the Consortium and the Board of Directors and is responsible

for communication with funding agencies and Consortium members, for public relations, for coordination of plans and agenda for meetings and for reports of expenditure of funds allotted to members.

4. Board of Directors - consists of one representative from each of the active member schools. They are appointed by their respective administrators to serve on the Board. Each Board member is entitled to one vote.

5. Executive Committee - consists of four elected members of the Board plus the Chairman of the Board. The Director of the Consortium is an ex-officio member of the executive committee. Members of the Executive Committee are elected for a term of four years with one member being replaced each year.

6. Active membership in the Consortium is obtained by vote of the Board of Directors after (1) submission of a letter of commitment to competency-based teacher education by the appropriate administrator of the school requesting active membership and (2) submission of a statement that the applicant school meets the criterion for the definition of a developing institution as stipulated by the U.S. Office of Education.

7. Associate membership - open to small southeastern colleges and universities interested in promoting and improving teacher education through competency-based teacher education programs. Submission of a letter requesting associate member status from the president or academic administrative officer directly responsible for the teacher education program is part of the application procedure. Such applications will be acted upon

by the Board of Directors.

Delimitations

The investigation of Consortium Central in terms of present organization and services was delimited to a survey of the present Consortium Board of Directors, which was surveyed for opinions substantiated by specific information. Limited time, personnel and fiscal resources also established parameters on the depth of study of this goal and the organizational by-laws determined the amount of change that can be made at this time. In terms of improved Consortium organization and services, the design and implementation of any recommended changes would have to be submitted to the Executive Committee and then presented to the Board of Directors prior to adoption.

Procedures

In the fall of the research study year, all directors of the competency based teacher education programs at all of the consortium schools were asked to reply to a Research Informational Opinionnaire (Appendix D). The focus of t is instrument was to identify direct and indirect services provided to member schools through the auspices of the Consortium and Consortium Central. It also asked for comments and suggestions from the schools in terms of additional input for improving this area.

The organization of Consortium Central was reviewed at a staff meeting of all personnel connected with Consortium Central. This meeting produced the Consortium organizational chart.

The Consortium Central office organization has evolved in response to the needs of the schools, and the services of the office have altered since its inception. During the first years of operation, the office

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handled fiscal arrangements, served as a communications center for information among the member schools, and served as repository for final reports of member school projects. With the addition of a part-time administrative assistant in the Consortium Central office, a wider scope and variety of services have been provided by the staff for Consortium members and other schools. The addition of this assistant has enabled the staff to better utilize the services of present personnel as well as to more efficiently handle such routine matters as inquiries from other schools, correspondence, travel reimbursement, etc.

During the project year fifteen different types of services have been identified as provided by Consortium Central. Specifically, these services include:

1. Technical Assistance Program services to Teacher Corps projects throughout the Southeast. These services include consultant services ranging from faculty development conferences to conferences dealing with specific program components such as management systems, etc.

2. Consultant services, on a limited basis, on competency based teacher education programs to other schools not Consortium members.

3. Utilizing as consultants the faculty and staff of Norfolk State College to provide services to schools interested in developing a Learning Laboratory suitable for CBTE programs.

4. Utilizing the faculty and staff of Florida A & M University as consultant to schools interested in developing a Simulation Laboratory component for CBTE programs.

5. Publication of a Consortium newsletter for member schools and

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limited other schools.

6. The location of federal funding sources for Consortium pro-
grams. In order to keep abreast of these sources the
Consortium has developed a system of linkages with persons,
offices, or programs which release news and or guidelines
for applying for federal funds. These linkages include such
governmental offices as the Office of Child Development,
Bureau of Education for the Handicapped and other contacts
as Educational Testing Service, the Southern Regional Educa-
tional Board and foundations such as Ford, Carnegie, and
Rockefeller.

7. Proposal writing for Consortium grants. This task usually
involves the executive committee, the consortium director
and the chairman of the board.

8. The administration of consortium grants. The fiscal responsi-
bility is located at the Consortium Central office at North
Carolina Central University which serves as the agent for all
consortium projects. Reports on the expenditure of funds
from grants must be reported to the board of directors every
fiscal year.

9. An informational service on competency based teacher education
programs and developments of member schools of the consortium.
This service is available to member schools and to interested
other institutions.

10. Providing cassette duplication services for member schools.
In this way, available resources within the consortium can
be shared.

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11. Collections of competency based teacher education materials
    have been acquired and have been catalogued for use by the
    consortium members. Materials on file are final reports from
    the consortium schools; the original model builders reports;
    AACTE materials on Performance Based Teacher Education;
    unpublished materials (texts) from the model builders;
    simulation kits, human relations materials such as the
    Thiokol program developed by Weber State College and the In-
    stitute on Human Development; CBTE programs materials developed
    by the National Teacher Corps Technical Assistance Program
    Associates; materials suitable for software. such as the
    Technical Skills of Teaching, Simulation Laboratories, etc;
    and a collection of modules from consortium schools that have
    been catalogued.

12. Planning and conducting of competency based teacher education
    conferences and workshops and workshops on topics related to
    CBTE. Participation in the regional AACTE meeting in Atlanta
    would be an example of the type of activity or related topics.

13. Sending representatives from the Consortium to workshops or
    conferences on competency based teacher education or related
    topics. Two representatives were sent to Weber State College
    to attend their workshop on the Weber modularized individualized
    program and two members were participants in the ASCD national
    conference in the Spring of 1973.

14. Coordination of field testing programs on components related
    to competency based teacher education. The Michigan State
    Module Field Testing Program in conjunction with some consortium

schools is one such example of this service.

15. Developing a Speakers Bureau on competency based teacher education for institutions and groups interested in improving teacher education.

In addition, consortium central conducts approximately five meetings a year for member school representatives. There has been a concerted effort by the Director to have these meetings cover two major areas: first to have a mini-workshop session for those in attendance on a topic relating to the development or implementation of a competency based teacher education program with a consultant and/or resource person present; the second part of the meeting is devoted to general consortium business, covering such topics as fiscal status of various projects, member reports on various topics, new funding sources or projects and the schedule and agenda for the next meeting.

The structure of the organization of the Consortium has not changed since its inception. With the publication of the Consortium By-Laws in 1972, the organization, structure and function of the Consortium has become public information. It is anticipated that some changes in the membership structure of the consortium may be made in the near future as a result of many inquiries for membership made to program directors and to consortium central.

Six services have been provided by member schools of the Consortium to local, regional, state and national groups. Specifically, these services include:

1. Rendering Technical Assistance Program services to Teacher Corps projects as a result of direct requests from Teacher Corps Program Specialists.

2. Consultative services to other area teacher training programs or State Departments of Education on competency based teacher education and/or competency based certification.

3. Developing local or regional conferences on components of member schools' competency based teacher education program. This type of conference is usually aimed at dissemination of information regarding program changes such as the development of clinical experiences and related program changes (use of clinical professors, on site instruction, etc. ·

4. Developing a resource library on competency based teacher education materials for use by personnel in teacher training institutions within the localities of member schools.

5. Making CBTE program personnel available for participation in local, regional or state level meetings, conferences and workshops on competency based teacher education and/or competency based certification.

6. Providing inservice education for public school personnel, utilizing a competency based approach.

The direct and indirect services of Consortium Central and of member consortium schools have received publicity, and the Southern Consortium of Colleges for Teacher Education is becoming known as one of the major resources for assistance in developing competency based teacher education in the United States.

Summary, Conclusions and Recommendations

During the short existence of the Southern Consortium of Colleges for Teacher Education, the consortium has had considerable impact on teacher education in the southeastern part of the United States. The

recognition of consortium schools in the newest of the AACTE mono-
graphs on Performance Based Teacher Education as having developed
total or parallel competency based programs of teacher education has
provided consortium schools leadership roles within their states.

Several of the consortium schools have been utilized by their
respective State Departments of Education as resource consultants in
planning state-wide development regarding competency based teacher
education and/or competency based teacher certification. By developing
Consortium Central, there has been a centralized operation made
available for all member schools to utilize, either individually or as
a group. Consortium Central has been able to keep up with the increas-
ing demands by being able to expand its personnel to increase its
efficiency. With a rather informal structure, the consortium has pro-
vided many services and performed tasks for various other educational
and governmental agencies. With limited authority, the Director of the
Consortium has been able to keep many of the member schools progressing
in the development of competency based teacher education programs.
With limited resources, the directors of most of the member school
programs have been able to develop and implement competency based
teacher education programs within their own institutions.

Keeping in mind the parameters of the Consortium and Consortium
Central, the following recommendations are provided:

1. Periodically, a review of the structure and organization
    of the Consortium should be conducted. This would identify
    those areas which may need to be modified or revised, such as
    membership status or the by-laws. Progress reports of Con-
    sortium funded efforts should be made to the board of
    directors periodically.

2. There should be a review of services available to institutions
   in the Southeast both from Consortium Central and member
   consortium schools. In several service areas there could be
   a duplication of services which should be coordinated by
   Consortium Central to facilitate better utilization of con-
   sortium manpower and resources. In the services provided
   some type of recording procedure should be developed so that
   the member schools and Consortium Central would be kept in-
   formed of all such activities. This type of information
   could be used as input for future proposals and projects.

3. Some type of cooperative institutional funding other than
   federal funds should be investigated in order to support
   Consortium Central and its services to the member schools.
   Membership could be held by an institution, using a prorated
   per student fee, or an institutional membership fee. This
   would allow the central office staff to be directly available
   to member schools and to provide direct leadership for the
   development of CBTE at the various institutions, by making
   the director a full-time staff member of the Consortium.

4. A dissemination system for materials and information housed
   at the Consortium Central office should be developed. As
   funds are allocated for materials and hardware, the access
   of those materials to members will allow for preview and
   purchase for CBTE Programs by use of local funds.

5. Continuation of present linkages with governmental agencies and
   educational and other groups interested in teacher education
   should be strengthened. These linkages should consist of

Teacher Corps; the American Association of Colleges for Teacher Education; the Elementary Model Builders; the Far Western Educational Laboratory; The Texas Research and Development Center for Teacher Education; The New England Program for Teacher Education; the Texas Educational Renewal Centers; Educational Testing Service; the National Laboratory for Higher Education; Southeastern Educational Laboratory; Educational Personnel Development Programs; Foundation for the Humanities; the Science Consortium in Denver; other consortia developing CBTE; and other agencies as they are discovered.

6. The possibility of reactivating the Consortium Task Forces which could serve as a nucleus of regional or component consultants should be investigated. This would aid in the development of stronger linkages with other groups or agencies interested in improving teacher education programs.

7. As more publicity for the Southern Consortium is generated, as through AACTE publications, consideration should be given to the development of some type of information providing news release covering the development and implementation of CBTE of the consortium schools. A videotape presentation, slide-tape presentation or a printed publication are possible media that could be considered. These materials could be made available on loan to interested individuals and institutions through the Consortium Central office.

CHAPTER THREE

GOAL III

TO DEVELOP SELECTED PROGRAM SITES FOR DEMONSTRATION TO
CONSORTIUM MEMBERS AND LIMITED OTHERS

Introduction

With the development of a competency based teacher education

program, certain components are essential for support in the development

of the total program. During the Spring 1972 Consortium meeting, spe-

cific components were identified that the member schools felt were

essential for the support of CBTE development and implementation.

Eleven major areas were identified, some with sub-topics to be included.

Member schools then selected those areas which were to be included in

their developing program, to be studied further, and/or researched for

inclusion in their programs. With the withdrawal of one of the member

schools, the list was revised in the fall of 1972 (Appendix E).

Statement of the Problem

After the eleven areas were identified and member schools volun-

teered to begin the development or implementation of those selected

components, four component areas were selected for study in the research

project. These four components were the Human Relations Laboratory,

the Simulation Laboratory, the Learning Center and Portal Schools.

These components were selected for development because each member

school anticipated developing all of these components to support their

individual programs. There was a need to have more information on the

development of these areas and on implementation procedures to facilitate

the importation of these components.

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Definition of Terms

1. Portal School - as defined in the Florida State University
   Model Elementary Education Program, is a public school
   which has responsibilities as a training institution for new
   teachers as well as responsibilities to the community for
   the education of its children. Some of the listed common
   characteristics for a portal school include (1) the principals
   and other status leaders of these schools must be favorably
   inclined towards innovation; (2) they will use new curricula
   that have been developed in such areas as mathematics, science,
   or social studies; (3) they will be employing organizational
   arrangements that include the utilization of paraprofessionals
   and teacher aides, some differentiation of roles among teachers
   and modular schedules, and (4) these schools will make con-
   siderable use of new teaching media. Portal schools will serve
   the total (model) program in a number of ways: (1) they
   will insure an easy transition for trainees from a shielded
   position in the university preservice phase to a fully re-
   sponsible teacher position in the schools in the inservice
   phase, (2) they will make it possible for the inservice phase
   to operate out in local communities in ways which reflect
   goals of both the (model) program and the local school district,
   and (3) they will be useful in providing feedback to determine
   further needed changes in the pre- and inservice phases of the
   (model) program.
2. Simulation Laboratory - as used in the ComField model, simu-
   lated conditions refer to any instructional context that is

less complex than that encountered in the ordinary classroom. Two assumptions underlying the use of simulation conditions prior to assuming responsibility for guiding the learning of pupils in the classroom, (1) there should be opportunity to perform the required tasks initially under circumstances where the complexity of the teaching-learning situation is somewhat simplified and (2) there should be evidence that prospective teachers are able to work profitably and constructively with children in a minimal risk situation before they assume responsibility for their learning in an actual situation.

3. Human Relations Training/Laboratory - helping an individual have an increased awareness of himself as a person, as a teacher, and as member of the profession. The human relations training is designed to assist an individual cope with her or his anxieties about teaching and any feelings of inadequacy and self-doubt. In addition the human relations laboratory provides settings in which the individual may explore how he relates to other persons and to groups of various sizes, particularly in the interpersonal relations relating to teaching and learning.

4. Learning Center - A center in which modules are housed and which provides the resources necessary for the attainment of competency in the modules. The center should have individual study carrels, both wet and dry, audio-visual equipment, curriculum laboratory materials, video-teaching studios, provision for the creation of soft-ware, preview studios, and appropriate spaces for simulated teaching. The center must have personnel to operate the various activities.

Delimitations

The design, development, and implementation of this goal was delimited to the four components just defined--simulation laboratory, human relations laboratory, learning center, and portal schools. While the schools were developing other components, this delimitation of the research team in terms of time and personnel was necessary in order that the goal might be attained. The institutions chosen to develop the components had to delimit the implementation of each component in terms of the availability of local funds and physical facilities that were available.

Procedures

In the spring of 1972, each of the schools had decided on that component in which it intended to specialize. The schools reviewed their situations relative to the components that could best be developed during the period of this project. The executive committee of the board decided on the four components described above, and then began plans for the development and implementation of these components at four of the schools. The school for each component was chosen because of the availability of previous work in the area, the availability of personnel, the availability of other federal funds to assist in the development of the project, or the previous acquisition of equipment or materials which might assist the research project in fulfilling the goal. There were insufficient funds within the research project itself to provide much assistance to the schools. Two components and two schools were selected in the spring. The schools were Florida A & M University which was chosen to develop a simulation laboratory and Norfolk State College which was chosen to develop a learning laboratory. Later North Carolina Central

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University was chosen to develop a human relations laboratory and Clark College to develop portal schools.

Each of the schools prepared a small proposal to the board of directors of the consortium. The board reviewed the proposals and provided a small seed grant to each of the four schools to assist in developing the component. The grants ranged from $1,000 to $2,500.

The research team interviewed each of the directors of the schools chosen to develop the component, and visited the site of each component. An opinionnaire was developed for the project director to complete on the development of this goal (Appendix D). The research team attempted to utilize the CIPP Process in order to assist the project directors in the development of the components in the project

Presentation and Analysis of Data

Each of the four component areas under study will be described individually.

Simulation Laboratory

With the seed money grant obtained from the consortium, Florida A & M University has purchased a variety of commercial materials in the area of simulation. Such packaged programs as Cruickshank's Inner City Simulation Laboratory and Critical Incidents in Teaching have been bought in multiple copies. This has allowed both the elementary and secondary education departments to utilize the materials simultaneously. In the CBTE program, seven different program areas are using sections of the commercial packages. Some simulation incidents are under development to supplement the commercial materials. All of the materials have been centrally located in a single classroom with support

materials for use by faculty and students. The room is equipped with tables of different shapes and sizes with chairs, arm-chair desks and seminar room chairs to allow for different types of settings to be utilized in simulation activities. Also located in this area are print materials and other support software such as filmstrips, transparencies, etc. There is also available for use in this laboratory such support hardware as videotape recording equipment, tape recorders, projectors of all types and projection screens. The walls of the room have bulletin boards, chalk boards and will eventually have pegboards placed on them. The room has been designed to provide a variety of settings needed by the various simulation activities taking place in the laboratory.

Human Relations Laboratory

North Carolina Central University, prior to the 1971-1972 school year, had in operation a human relations component in their competency based teacher education program. This component utilized the Institute for Human Development Encountertapes for Personal Development, a commercially prepared package of self directed, taped, guided activities, geared to helping an individual learn how he/she related to others and how they in turn were related to by others. Prior to beginning the laboratory experiences, students were administered the Miskimins Self-Goal-Others Test to obtain data on each student's self concept and feelings related to others. After completion of the ten sessions, the students were readministered the Miskimins to garner post experience data on each individual completing the experiences. The data was then analyzed by the NCCU Computer Center and it was found that in the post-test results two areas showed significant positive results. A

modification of the program was made to allow for an additional seminar to be added to ten scheduled activity meetings, in order that the students would have the opportunity to summarize and reflect upon the learnings that had taken place as a result of taking part in the human relations laboratory.

However, due to conflicts and limited faculty and space availability, the human relations component in this formalized manner was temporarily eliminated from the CBTE program. Projections were made to reactivate this component during the research grant period and reinsert it into the competency based program. In addition to the IHD Encountertapes for Personal Development, North Carolina Central University purchased the Thiokol Human Relations Package (developed by Weber State College) as an alternative experience and the students will be allowed to select the program in which they will participate.

The Thiokol Human Relations Program utilizes a variety of activities that can be carried on in a number of settings such as a classroom, a seminar room, a dormitory lounge or a specifically designed and designated room developed by the institution for this purpose.

Learning Laboratory

The learning laboratory has been developed and partially implemented with funds from the Norfolk Teacher Corps project. A classroom size room has been designated as the learning laboratory and has been equipped with a video-tape recorder and monitor in a screened off section designated as a microteaching studio. This area is also used by students as a film, filmstrip, slide projection screening area. Shelving has been installed and is sectioned off to allow for the storage of curriculum materials such as curriculum guides, professional

books, games and other classroom software. Table-top space is avail-
able to faculty and students for the development of program software
such as charts, transparencies, etc. Duplicating and collating equip-
ment are also available. In addition to this designated learning
laboratory, the Norfolk students in the CBTE program have access to the
Special Education Learning Center and Laboratory and the Audio-Visual
Center which contains fully equipped studios available for production
of tapes, a classroom equipped with desks, chairs, boards and video
equipment and a video unit within a mobile van for community wide
taping possibilities. The personnel assigned to the Audio-Visual Center,
including the staff artist, are available on a consultant basis to all
college personnel. Funds from the consortium to assist in the develop-
ment of the center were delayed by university red-tape, but these funds
have now been received. This will enable the learning center to become
fully operational for the CBTE students in the program.

Portal Schools

The portal school concept was to be developed by Clark College.
Clark College participated in a Teacher Corps Project in a consortium
which was funded through the University of Georgia and which operated
in conjunction with the Atlanta Public Schools. Clark College was
chosen to develop the concept because the concept is an inherent portion
of Teacher Corps programs. Clark selected a group of elementary educa-
tion majors to work in three schools in the Atlanta area. The schools
ranged from traditional, large city ghetto, to innovative with open
classrooms and differentiated staffing patterns. The students spent
approximately 2-1/2 hours a week in the schools tutoring children under
the supervision of the classroom teacher and the college instructor.

The college instructor held on-site instruction with the college

students while they were in the school. The ghetto school was able

to find a room to provide for the college instructor so that the

students in the program could bring groups of children to this room

where they worked under the supervision of the college instructor.

While the concept of the portal school was not fully developed

in the sense that the schools actually became the "portal" through

which the preservice teacher entered the teaching profession, it is

believed that the college has made an excellent beginning with the

clinical experiences for the preservice teachers, and that this could

lead to the complete implementation at a later date. Interviews, con-

ducted by the research team with the principals of the schools and

with the supervising teachers involved in the clinical experience,

revealed that there was rapport with the university and that the

teachers and principals were pleased with the results of the clinical

experiences this year. In order for the program to be fully operative,

competencies would have to be developed with teachers and the college

cooperating in the development and in-service education would have to

be initiated for teachers in the public schools. The research grant

simply did not provide sufficient funds to fully implement this concept.

Summary, Conclusions and Recommendations

The four component areas studied during this research project

year have been designed, developed and were implemented, at least to

some degree. To continue the development and implementation of these

component areas (human relations, simulation and learning laboratories

and portal schools), there is need for some initial funding to cover

costs of materials and/or supplies to begin operation. In terms of

developing and implementing the portal school component, there is need

for continuous and cooperative planning with the personnel of the public

schools involved.

Each of the institutions involved with the four research components

have been able to identify factors that have helped facilitate the

development of the specific component. In the case of the learning

laboratory and portal schools, involvement of Teacher Corps programs

has helped develop these components. Faculty involvement and student

reaction have been identified as facilitating factors for the simulation

and human relations components.

The following recommendations are made in relation to the develop-

ment and exportability of the four CBTE program components that have

been investigated this past year:

1. In the development of laboratories, human relations, simula-

   tion or learning centers, the faculty must be fully aware of

   the role this component will play in the development of the

   CBTE program. To become fully aware of these roles, the

   faculty may have to assume a student role and "go through"

   the activities of each of these areas.

2. The establishment of these components was important in that

   the other schools within the consortium visited the center

   in order to see it in operation and therefore were able to

   garner ideas for the development of similar support systems

   for their programs. In addition, the problems encountered

   by each school provided suggested solutions to those problems

   for the other schools.

3. The initiative that was displayed by the schools in developing

the centers was imaginative and provided some solutions for other schools. For example, the learning center at Norfolk State College was designed and constructed by college students because there were insufficient funds to hire maintenance personnel to build carrels, partitions, etc.

4. The development of the centers provided an impetus for the development of the same concepts in other schools. Several consortium schools are enmeshed in developing human relations programs, learning centers, and in attempting to develop portal schools. Many of the schools have also established simulation centers.

CHAPTER FOUR

GOAL IV

TO COMPARE MODULAR TRAINED TEACHER EDUCATION STUDENTS WITH
TRADITIONALLY TRAINED TEACHER EDUCATION STUDENTS

Nature of the Problem

The last decade has seen the rise of criticism of preparation

programs for teachers. The U.S. Office of Education called for pro-

posals for new specifications for the training of teachers in response

to the criticism of present training programs. Nine proposals were

submitted and funded by the Office of Education. The University of

Wisconsin was not included in the original funding effort, but pre-

pared a proposal without cost to the federal government. These ten

proposals set forth a new system for the training of educational per-

sonnel that has since become known as competency based teacher educa-

tion. Since the completion of the original research designs and the

subsequent feasibility studies, numerous federal programs have con-

tributed to the development of competency based teacher education pro-

grams. Included among these projects has been the Performance Based

Teacher Education Project of the American Association of Colleges for

Teacher Education in association with the Texas Education Agency,

Educational Personnel Development Programs. In addition all Teacher

Corps programs must include competency based components in their pro-

posals for funding.

Educational representatives from eleven states met in Florida

in 1970 to plan for the development of programs for performance based

(competency based--it is recognized by both names) certification of school personnel. The states of Texas, Florida, and North Carolina have mandated the development of competency based teacher education and/or certification. The State of Alabama has mandated an approach to competency based teacher education by establishing a year of internship for all teachers with competency being certified through programs that produce cooperation between the State Department of Education, the Local Education Agency, and the institutions of higher education. In addition, the new standards published by the National Council for the Accreditation of Teacher Education promote the evaluation of product, an inherent feature in competency based teacher education. The National Council for the Accreditation of Teacher Education is the principal agency for accrediting programs for the training of teachers.

The initial explorations in competency based teacher education would appear to have been completed with the development of the new specifications for the training of teachers and the feasibility studies to determine whether the programs are feasible. Both federal programs and agencies are contributing to the development of the new programs, and several states have mandated the new training programs. There has been, however, no real effort to ascertain whether the new programs for the training of teachers really produce a better product. Research should be conducted in this area of the preparation of elementary teachers in order to ascertain if the competency based approach is superior to the traditional method of training teachers.

Purpose of the Study

The purpose of this study was to investigate selected characteristics of elementary teachers prepared in a competency based teacher

education program as compared to elementary teachers prepared in a conventional teacher education program. The study was conducted in elementary social studies at Xavier University of New Orleans and in elementary social studies at Pembroke State University. Pembroke, North Carolina. In addition, the study included another group of elementary physical education teachers at Pembroke State University. The study, therefore, was conducted with three groups of elementary pre-service teachers. One group (elementary social studies) was selected at Xavier University and two groups were selected at Pembroke State University (elementary social studies, elementary physical education).

Hypotheses to Be Tested

The following hypotheses were formulated for examination:

Hypothesis I. There is no significant difference in the performance on selected cognitive objectives between pre-service elementary teachers in elementary social studies and elementary physical education prepared in a CBTE program and teachers prepared in a conventional program.

Hypothesis II. There is no significant difference in the performance on selected process objectives between elementary pre-service teachers in elementary physical education prepared in a CBTE program and teachers prepared in a conventional program.

Hypothesis III. There is no significant difference in the performance on teaching and interactive skills between elementary pre-service teachers in social studies and physical education prepared in a CBTE program and teachers prepared in a conventional program.

Hypothesis IV. There is no significant difference in the performance on selected cognitive objectives by pupils in elementary schools who are taught by teachers prepared in conventional programs as compared to pupils taught by teachers prepared in a CBTE program.

Hypothesis V. There is no significant difference in the performance on selected process objectives by pupils in elementary schools who are taught by teachers prepared in conventional programs as compared to pupils taught by teachers prepared in a CBTE program.

Delimitation of the Study

This study is delimited to Xavier University of New Orleans and Pembroke State University of North Carolina. Other consortium schools were not included. The study, as originally conceived would have included other colleges. This delimitation was necessary because those schools chosen for the research study would have to have parallel programs, i.e., one program that could be classified CBTE and another program that could be classified as conventional. Another delimiting factor was the number of students to be included in the study. Most of the consortium schools had rather small programs and these two schools were chosen because it was felt that they would have enough elementary majors that matching two groups for the research study would be no problem.

The study was delimited to pre-service teachers who would be working with children in grades two, three, four, five, and six. It was deemed inadvisable to work with teachers who would be teaching in other grades.

The study was delimited to include a series of basic cognitive objectives for pre-service teachers that would include knowledges concerning subject matter and knowledges concerning the skills of teaching and the interactive skills. No process objectives were included for the social studies portion for the pre-service teachers. This delimitation was necessary because there was no way that analysis of video tape could be accomplished with regard to those objectives. However, the elementary physical education teachers were delimited to the acquisition of the skills in American Association Health, Physical, and Recreation Youth Fitness Test. The product for the pre-service teachers was delimited to a series of teaching skills and interactive skills. It was necessary to delimit the study to this extent because the skills had to be analyzed by way of audio tape.

The cognitive objectives for the pupils concerned the subject matter studied under the guidance of the teachers. With those teachers who were working in elementary social studies, the subject matter dealt with content in geography, history, or other areas in social studies. With the pupils in elementary physical education, the cognitive objectives dealt with the knowledges dealing with the AAHPER Skills (mentioned above). There were no process objectives for the pupils in the social studies. The delimitation was necessary because of the distance that the schools were located from the universities and the unavailability of video tape. The process for the elementary pupils was the acquisition of the AAHPER Skills.

The investigation of the study was delimited to an examination that is not inclusive of all the characteristics available in the literature. CBTE is a totally new design which utilizes a systems approach to fuse

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the college or university and the public school in the preparation of educational personnel. This systems design and the role of college personnel predicate new roles and responsibilities for teacher education institutions in working with public schools.

The literature, particularly the literature published by the American Association of Colleges for Teacher Education (see Chapter One) describes the basic elements of CBTE, which have been included in the study. This literature also describes some implied and related elements which may have been included. The study concerned itself only with those elements which had been selected by the schools chosen. This delimitation was necessary because of the latitude that was adopted by consortium schools in that each school was to design and implement a program that was suitable for its particular situation, as long as the design included the basic elements alluded to above.

The study also delimits itself in the design of a module which is the design that was developed and adopted by the Consortium of Southern Colleges for Teacher Education (see Chapter One). It was felt by the authors of the research that the design included the essential elements of modular construction. It does not include all of the elements of modular construction suggested in the literature. Some schools have developed modules which contain more elements, but all schools have subscribed to a design that includes the essential elements.

Definition of Terms

1. _Competency_.--A performance of the teacher that can be measured by the attainment of knowledges and processes by pupils in public schools. The verbalization of the competency must specify the learner

(the pre-service teacher), the behavior of the learner (i.e., the

performance of the teacher), the conditions surrounding the behavior,

and the degree of acceptance or the criterion level. The competency

description must also assume a particular role for the teacher and is

made public, in advance, to the teacher so that he may know when the

criterion level for the behavior has been achieved.

2. Module.--A unit of a series of packaged materials leading to

the attainment of a competency. Elements of a module must include a

title, a behavior which conforms to a specific performance and includes

conditions and degree, a rationale for the module, a pre-assessment of

the behavior, at least two learning alternatives, a post-assessment of

the behavior, and the resources needed for the module.

3. Clinical Experience.--Experiences of the pre-service teacher

in public schools with individual and small groups of children in

developing a level of competency. These experiences may be under the

tutelage of a clinical professor who can conduct on-site instruction.

This has been the case with the study involving the elementary physical

education teachers. In the portion of this study dealing with the

elementary social studies, the clinical experience has been identified

with the conventional student teaching experience.

4. Competency Based Teacher Education (referred to as CBTE).--

A teacher education program in which pre-service teachers pursue an

individualized program of instruction based upon specified competencies

and which has a system of modules or packaged material leading to the

attainment of competencies. The program is concerned with instructional

objectives in the cognitive, the psychomotor, and the affective domains.

This program also has appropriate clinical experiences in order that the

performance of pre-service teachers may be checked in the reality of the classroom. The measure of that reality is the learning of pupils in the public schools. The college professor may become a clinical professor, conducting on-site instruction. He may assume the role of diagnostician, interactor, facilitator of learning, or innovator rather than the role of lecturer.

5. Competency Based Program.--Competency based program for the purposes of this study utilizes a modular delivery system leading to the attainment of competency.

6. Conventional Teacher Education Program.--A teacher education program in which the pre-service teacher pursues a series of predetermined courses and then demonstrates his ability to teach children in a brief practicum known as student teaching. The role of the professor is that of lecturer, counselor and advisor. The program will not have clinical experiences prior to student teaching.

7. Selected Characteristics.--Comprised of the following:

Cognitive Objectives (Pre-service Teachers). Objectives dealing with the knowledges of teaching and interactive skills, the AAHPER Skills.

Process Objectives (Pre-service Teachers). The acquisition of the skills measured by the American Association of Health, Physical Education, and Recreation Youth Fitness Test. These skills are pull-ups (males), flexed arm hang (females), sit-ups, shuttle run, broad jump, fifty yard dash, softball throw, and the six-hundred yard run-walk.

Product Objectives (Pre-service Teachers). Teaching skills defined as establishing readiness for a lesson, presentation

skills, the use of reinforcement, the use of repetition,

questioning skills, utilizing a variety of media in presenta-

tion, the use of prompting skills, the use of examples, and the

summarization of a lesson. The interactive skills are defined

as teacher initiated talk, teacher response talk, pupil initiated

talk, pupil response talk, and silence.

Cognitive Objectives (Elementary pupils). Knowledges about

subject matter in social studies and about the AAHPER Skills in

physical education.

Process Objectives (Elementary pupils). The acquisition of the

AAHPER Skills (Physical education pupils only).

Survey of the Literature

Concern over the training and teaching of teachers has become more

prevalent over the past decade. Such authors as Sarason have proposed

that

> What we need to know is not only to what the student is exposed,
> but the specifics of how it is structured, who structured it
> and the roles and perceptions of the student. Without detailed
> descriptions of what actually goes on between student and teacher
> and between student and master teacher, it is impossible to
> judge whether the theory (if there is one, and too frequently
> there is not), giving rise to training practices, is adequately
> being reflected in how these practices are being implemented.
> What is so distressing to us is not only that the theory and
> practices of training frequently bear little relation to each
> other, but that neither bears a strong resemblance to the
> reality of everyday tasks of the teacher.[1]

The traditional ways in which teachers have been trained barely

come to grips with the question of how one maximizes the possibility

that a teacher's practice harmonizes with principles of learning and

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[1]S. B. Sarason, et al., The Preparation of Teachers--An Unstudied
Problem in Education (New York: John Wiley, 1962), p. 118.

development.[2]

In terms of education, changes must come about within the institution charged with the training of teachers.

> A professional program built upon the 'self as instrument'
> concept must break out of old traditions which sought to
> provide common experiences. Maximum flexibility is called
> for. To provide this kind of flexibility, we must first
> have to shake ourselves loose from the lockstep of some
> of our traditional ways of organization. The familiar
> concept of courses, credit hours, classroom scheduling,
> grading practices, examinations, and the like may often be
> helpful in organizing learning around content. They may
> also seriously interfere with producing a change in people
> and their behavior.[3]

In discussing the preparation of teachers, Sarason advances the hypothesis that one of the major reasons that so many teachers are dissatisfied with themselves in their work is that their training did not illuminate the nature of their learning process and how this relates to and affects the learning process of their pupils. They teach but in the process they tend neither to give expression to their own experiences as a learning process nor to perceive the identity between themselves and their pupils.[4]

In 1966, 1967, the United States Office of Education began its first developmental efforts in the area of teacher education. The need for teacher training institutions to prepare teachers to cope effectively with such innovations as the new curriculums, new techniques and technology and new roles for the teacher to assume within the classroom all form the rationale for the Bureau of Research's Teacher Education

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[2]Sarason, p. 118.

[3]A. S. Combs, The Professional Education of Teachers (Boston: Allyn and Bacon, 1965), p. 115.

[4]Sarason, p. 118.

Development Program.[5] Thus the focus of the Office of Education became

"Will teachers be adequately trained to assume such a role?" Davies

summarized the concept by stating, "A relevant teacher education pro-

gram will prepare teachers for the next decade if teachers were inno-

vators--to produce and accommodate new ideas to change when community

needs and children change."[6]

By issuing a request for proposals to develop educational specifi-

cations for the preparation and training of elementary teachers, the

Bureau of Research's Teacher Education Development Program began its

thrust. Nine proposals were funded and one additional program was re-

searched without the use of federal funds. Contracts were consummated

with Florida State University, University of Georgia, University of

Massachusetts, Michigan State University, the Northwest Regional

Laboratory, University of Pittsburgh, Syracuse University, Teachers

College: Columbia University, and the University of Toledo. The tenth,

funded by its own resources, was the University of Wisconsin.

Working independently and with relatively little communication

between the separate projects, the ten elementary models came up with

several common factors. First, there are specific, identifiable com-

petencies that form the basis of teaching and, therefore, teacher

training. Secondly, technology must be utilized for both program

development and management and operation. Thirdly, the teacher training

program, as well as the public school program, should provide for

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[5]H. Hjelm, Article in Teacher Education: Issues and Innovations,
AACTE Yearbook (Washington, D.C., 1968), p. 130.

[6]D. Davies, "A Search for Relevancy," Theory Into Practice,
Volume 6, Number 2, p. 217.

differences among learners in terms of experiences, achievement, rate
and style of learning.[7]

From the ten diverse settings, these common elements have provided
the concept of competency based teacher education. Howsam and Houston
point out that this is a coined word of recent origin and means an
approach to training teachers with an emphasis on the ability to do.[8]

When relating this term to teacher education programs, there is
more support from Brown who stated, "we need to provide not new courses
based on and inculcating the same old assumptions but rew experiences
designed specifically to challenge those assumptions enabling teachers
to be as a consequence both freer and more flexible people."[9]

By way of stimulating improvement of preparation programs for
educational personnel, the Bureau of Educational Personnel Development
of the United States Office of Education funded a number of projects
to encourage the development of performance based (competency based)
teacher education programs. The Office of Education has supported the
Performance Based Teacher Education Project of the American Association
of Colleges for Teacher Education and has provided assistance to the
Texas Education Agency in the development of competency based teacher
education. The Performance Based Teacher Education--The State of the
Art, prepared under the auspices of the AACTE Performance Based Project,
has become the most widely read single publication on competency based

    [7]Charles Johnson, University of Georgia, in a speech at the
University of South Alabama, Spring, 1973.

    [8]R. W. Houston and R. B. Howsam, eds., Competency Based Teacher
Education Progress, Problems and Prospects (Chicago: Science Research
Associates, 1972), p. 3.

    [9]R. H. Brown, "Notes on Teacher Education," Change in Higher
Education, 2 (1970), 44-47.

teacher education. Authored by Stanley Elam, the paper presents those

elements generally agreed upon as "essential," "implied," and "related

and desirable."[10] (These elements have been provided in this report

in Chapter One.)

Change in teacher education involves other elements than the de-

partment or college of education. Change must involve other departments,

schools, or colleges, the students, the public schools, the state and

its governing teacher education agencies, teacher organizations, and

the public.[11]

Rosner believes that performance based teacher education can be

considered as a lever for change because it requires explication of the

specific knowledges and skills that comprise the teacher education

program. Performance based teacher education requires systematic

assessment of the students' performances at various stages of the

(teacher education) program.[12]

In the past, assessment in education has referred to some type

of normative-referenced approach. Individuals were compared to other

individuals using the same type of assessment or measurement instrument.

However, under competency based programs, an individual is measured

against some criteria or standard of performance. Thus, if a student

is following an individualized program, the assessment is made against

the attainment of the personalized objectives. Pophan emphasizes the

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[10]Stanley Elam, A Resume of Performance Based Teacher Education:
What Is the State of the Art? (Washington, D.C.: The American Associa-
tion of Colleges for Teacher Education, 1972), pp. 4-5.

[11]Houston and Howsam, p. 11.

[12]Benjamin Rosner, The Power of Competency Based Teacher Education:
A Report (Boston: Allyn and Bacon, 1972), p. 99.

fact that the teacher would like all students to display a given level

of excellence.[13] The teacher's interest should not be used by the

educational evaluator because "such measures typically are too gross

to yield precise information regarding learners' achievements on

particular objectives and they also depend upon score variability which

may yield misleading estimates of the nature of the learner's per-

formance."[14] Measurement specialists are only now beginning to work

on the technical problems of devising and improving criterion-referenced

measures.

Assessment within a competency based program is also of a formative

nature rather than of a summative nature. It is formative in that assess-

ment is used to identify the competencies that a student lacks. Person-

alized programs are then planned on the basis of this information. In

this way, regeneration of personalized programs provides a positive

force for both student and instructor.[15]

Competency based teacher education involves change in the department

or school of education relating to the specification of competencies,

the development of those competencies in a "doing" atmosphere, and appro-

priate clinical experiences to relate the competencies to the learning of

children. It also involves the use of normative analysis, where the

normative analysis applies. However, the development of competency based

teacher education also implies the development of criterion-referenced

measures that can be utilized to measure the progress of individuals

toward personalized objectives.

[13]W. James Popham, An Evaluation Guidebook (Los Angeles: The Instructional Objectives Exchange, 1972), p. 32.

[14]Ibid., p. 35.

[15]Houston and Howsam, pp. 123-124.

Methods and Procedures

The conceptual design of the research is presented below:

The University Program
(Preservice Teachers)

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┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│              │      │              │      │  Product     │
│  Content     │ ───► │  Process     │ ───► │  Objectives  │
│  Objectives  │      │  Objectives  │      │  ("eaching   │
│              │      │              │      │  Skills)     │
└──────────────┘      └──────────────┘      └──────────────┘
```

The Elementary School Program
(Elementary Children)

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              ┌──────────────┐      ┌──────────────┐
              │  Content     │ ───► │  Process     │
              │  Objectives  │      │  Objectives  │
              └──────────────┘      └──────────────┘
```
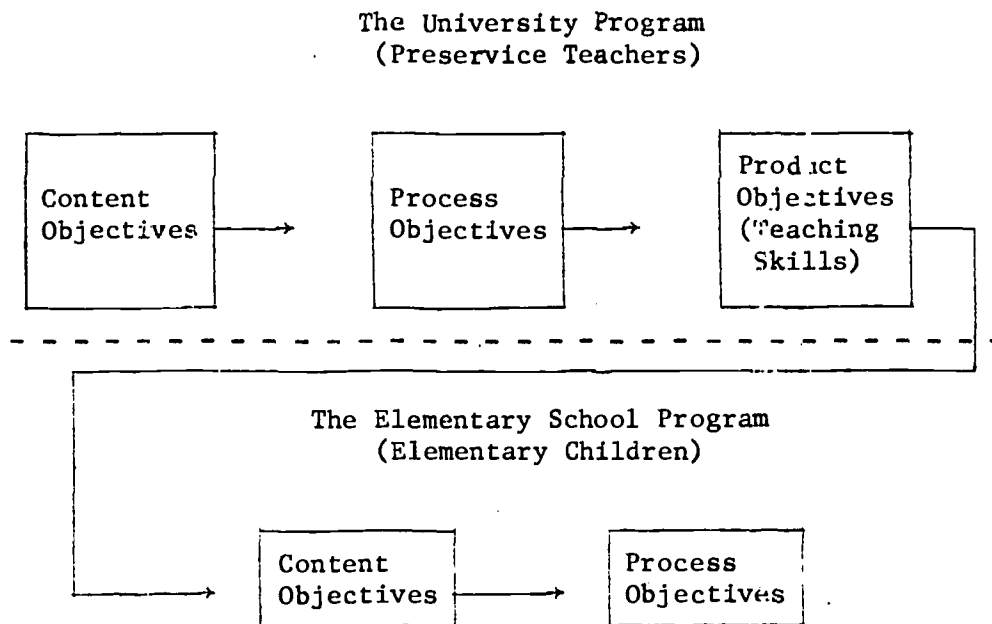
The design can be explained in that there are certain content ob-
jectives for preservice teachers which lead to the attainment of certain
process objectives. The acquisition of the process objectives lead to
the product of the university program which can be defined as teaching
skills and interactive skills. These three elements are considered to
be the university program. As a result of the preservice teachers'
attainment of the content, the process, and product objectives at the
university, there are certain content objectives which elementary
children should acquire. These content objectives should lead to the
attainment of process objectives by elementary children. Both the
content and process objectives of elementary children can be considered
the product of the preservice teachers.

The study selected two groups of pre-service teachers. One group
was to serve as a control group and the other group was to serve as the

experimental group. The two groups of pre-service teachers were equated as nearly as possible on the basis of age, sex, race, SAT scores, grade point averages, and socio-economic status. The conventional group of students proceeded through a series of lectures concerning the content and process objectives and the teaching skills and interactive skills. The experimental groups proceeded through a series of modules designed to establish competency in both process and product (see Appendix F).

After a period of instruction on the university campus, both the control and experimental groups were placed in elementary school settings. Each preservice teacher worked with a group of approximately thirty-five pupils. The pupils were equated on the basis of race, sex, I.Q., achievement and socio-economic status. The preservice teachers were scored on teaching and interactive skills (see Appendix G). The elementary pupils were scored on cognitive and process objectives.

The study selected three different settings for the research study. One group was selected in elementary physical education at Pembroke State University, Pembroke, North Carolina. Another group was selected in elementary social studies at Pembroke State University. A third group was selected in social studies at Xavier University of New Orleans, Louisiana. Each study will be treated separately, inasmuch as procedures differed slightly in each study because of the circumstances which affected the study.

Elementary Physical Education
(Pembroke State University)

Two classes in elementary physical education were selected for participation in the study. The records of sixty-eight men and women

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were examined and thirty college students were selected for the research. The records of these thirty preservice teachers were matched on the basis of age, sex, race, scholastic aptitude test scores, grade point averages and socioeconomic status. The scores of the groups (control and experimental) are presented in Tables 1 and 2.

TABLE 1

MASTER ROSTER OF PRESERVICE TEACHERS IN THE CONTROL GROUP
ELEMENTARY PHYSICAL EDUCATION

Student	SAT	GPA	AGE	SEX	RACE	SOCIAL CLASS
1	606	2.63	21	M	W	37-UM
2	788	3.20	20	F	I	57-UL
3	636	2.02	21	M	W	57-UL
4	871	2.38	20	F	W	57-UL
5	759	2.01	21	M	N	57-UL
6	663	2.20	20	M	W	57-UL
7	747	3.69	21	F	W	57-UL
8	638	2.70	22	F	N	57-UL
9	837	2.20	20	M	W	57-UL
10	706	2.10	22	M	W	57-UL
11	837	3.10	21	M	W	57-UL
12	761	2.36	21	F	W	57-UL
13	825	1.91	22	M	W	57-UL
14	780	3.40	20	F	W	57-UL
15	873	2.38	20	M	W	57-UL

The information presented in Tables 1 and 2 was subjected to analysis in order to determine if there were significant differences in the groups. The analysis of the SAT scores of the groups is presented in Table 3.

TABLE 2

MASTER ROSTER OF PRESERVICE TEACHERS IN THE EXPERIMENTAL GROUP

Student	SAT	GPA	AGE	SEX	RACE	SOCIAL CLASS
1	610	2.59	22	M	W	37-UM
2	783	2.23	22	F	I	57-UL
3	632	2.24	21	M	W	57-UL
4	877	2.58	21	F	W	57-UL
5	754	2.37	22	M	N	57-UL
6	661	2.39	22	M	W	57-UL
7	755	2.88	21	F	W	57-UL
8	640	2.92	21	F	N	57-UL
9	829	2.68	22	M	W	57-UL
10	710	2.73	20	M	W	57-UL
11	891	2.24	20	M	W	57-UL
12	758	2.46	21	F	W	57-UL
13	831	2.12	21	M	W	57-UL
14	781	3.09	21	F	W	57-UL
15	879	2.42	22	M	W	57-UL

TABLE 3

COMPARISON OF MEANS OF SCHOLASTIC APTITUDE TEST SCORES:
CONTROL VERSUS EXPERIMENTAL

Group	Mean	N	df	t	P(.05)
Control	758.6	15	28	.0236*	2.048
Experimental	759.4	15			

*Not significant at the .05 level.

The analysis indicates that there were no significant differences be-
tween the control and the experimental groups based on the scholastic
aptitude scores.

The grade point averages of the preservice teachers were checked from records available in the registrar's office. The averages were computed on the basis of a four point scale in which "A" is equal to four points; "B" is equal to three points; "C" is equal to two points; and "D" is equal to one point. The means were compared to ascertain if there were significant differences between the control and the experimental groups. Table 4 presents the results of that analysis.

TABLE 4

COMPARISON OF MEANS OF GRADE POINT AVERAGES:
CONTROL VERSUS EXPERIMENTAL:
PRESERVICE TEACHERS

Group	Mean	N	df	t	P(.05)
Control	2.55	15			
			28	.1865*	2.048
Experimental	2.52	15			

*Not significant at the .05 level.

Examination of the table reveals that there were no significant differences between the groups with regard to grade point average.

The study attempted to equate the groups in terms of age. The ages of the preservice teachers were recorded from records available in the registrar's office. The ages of the control and experimental groups were subjected to analysis. The result of that analysis is presented in Table 5.

There were no significant differences between the groups in age.

TABLE 5

COMPARISON OF MEANS OF AGE
CONTROL VERSUS EXPERIMENTAL:
PRESERVICE TEACHERS

Group	Mean	N	df	t	P(.05)
Control	20.80	15			
			28	1.7024*	2.048
Experimental	21.26	15			

*Not significant at the .05 level.

The students in the control and experimental groups were matched
with regard to sex. The composition of the groups are presented in
Table 6.

TABLE 6

NUMBER OF MALES AND FEMALES IN CONTROL
AND EXPERIMENTAL GROUPS

Group	Male	Female	Total
Control	9	6	15
Experimental	9	6	15

The preservice teachers in the control and experimental groups
were matched with regard to race. The composition of the groups are
presented in Table 7.

Records of the preservice teachers that were selected to partici-
pate in the research project were carefully checked in the registrar's
office to discover the education level and occupation of their parents.
These college students were interviewed by the researcher in order to

ascertain the source of income of their parents. Status usually is ascribed to a family on the basis of the father's occupation, education, and source of income. The combination of these factors was used primarily for establishing social class.

TABLE 7

RACE OF PARTICIPANTS IN CONTROL AND EXPERIMENTAL GROUPS

Group	White	Negro	Indian	Total
Control	12	2	1	15
Experimental	12	2	1	15

Data gathered from the registrar's office and from the interview techniques were converted to scores using Warner's Index of Status Characteristics as adapted by McGuire and White of the University of Texas and is known as the Index of Social Status--Short Form.[16] The Warner Index of Status Characteristics is widely accepted as a reliable gauge of social position. The scale was developed utilizing both subjective and objective measurements in interviews and ratings by judges. Warner named the technique Evaluated Participation. It was an attempt to establish status by rating by comparison, institutional membership, matched agreements, status reputation, symbolic placement, and matched agreements.[17]

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[16] Carson McGuire and George D. White, "The Measurement of Social Status" (unpublished Research Paper in Human Development, No. 3 [revised], Department of Educational Psychology, The University of Texas, March, 1955), p. 2.

[17] W. Lloyd Warner, Marchia Meeker, Kenneth Eels, Social Class in America (Chicago: Science Research Associates, 1949), pp. 47-111.

From the results of this subjective, objective technique, Warner established the Index of Status Characteristics which was used to compute the social status of individuals. Carson McGuire has adapted the Index of Status Characteristics to compile the Index of Social Status which was utilized in this study.

A summary of the social classification for the control and the experimental groups in the study are presented in Table 8.

TABLE 8

SOCIAL CLASSIFICATION FOR CONTROL AND EXPERIMENTAL GROUPS

Group	Lower-Lower	Middle-Lower	Upper-Lower	Lower-Middle	Upper Middle	Total
Control	0	0	14	0	1	15
Experimental	0	0	14	0	1	15
Total	0	0	28	0	2	30

The social class index scores were submitted to a t test in order to assure that there were no differences between the groups. The results of that analysis are presented in Table 9.

TABLE 9

COMPARISON OF MEANS OF SOCIAL CLASS INDEX SCORES
CONTROL VERSUS EXPERIMENTAL

Group	Mean	N	df	t	P(.05)
Control	55.66	15			
			28	0	2.048
Experimental	55.66	15			

*Not significant at the .05 level of probability.

Once it had been ascertained that there were no significant differences between the experimental and the control groups with regard to the factors described, the study proceeded to place both groups through the content, the process, and the product facets of the research. The control group proceeded through a conventional program as described, and the experimental groups proceeded through a series of modules.

Knowledge Testing Instrument
for Preservice Teachers

A knowledge testing instrument was prepared by preparing questions relating to physical education skills and skills in teaching. The questions were selected by a panel of elementary physical education professors and by a panel of professors of elementary methods professors. Sixty questions were prepared and administered to two groups of preservice teachers to establish the reliability of the instrument. The reliability was established by using the Spearman Brown Split-Half reliability method. The reliability coefficient was .95.

Process Testing Instrument
for Preservice Teachers

The process area for the preservice teachers were the skills included in the American Association for Health, Physical Education and Recreation Youth Fitness Test. This test has been in wide use for the last fifteen years. This test deals with items which give indication of physical fitness. The test has been standardized and provides data that can be subjected to normative analysis.

Product Testing Instrument
for Preservice Teachers

The product measure for the teachers consisted of a series of
nine competeri.:ies which were selected by a panel of college professors
as important for teachers to attain. The competencies have been pro-
vided in the Definitions of Terms. The professors who selected the
teaching skills prepared a series of nine modules for the attainment
of the teaching skills. Each skill was provided a criterion level so
there would be a measure for the student as well as a measure for
analysis. Th. criterion level was established by consensus of the
professors who established the competencies and wrote the modules. It
was not possible to establish the validity of the modules prior to the
beginning of the study. (See Appendix F for a copy of the competencies
and the modules.)

Interactive Skills Testing Instrument

In addition to the modules and competencies for the attainment of
the teaching skills, the interactive skills of the teachers were
charted. The instrument that was devised for measuring this interaction
was developed by a panel of three college professors. The interaction
was measured by analyzing audio-tapes of a ten minute lesson. The
action in the lesson was checked every five seconds in terms of teacher
initiated talk, teacher response talk, pupil initiated talk, pupil re-
sponse talk, or silence. This type of analysis could be utilized to
determine whether the interaction in the lesson was pupil dominated or
teacher dominated. The tapes were analyzed and charted by an experienced
and trained person in interaction analysis. All tapes in the project
were analyzed by the same person.

General Procedures for Measuring Knowledges.
Process, and Product: Preservice Teachers

The control and the experimental group of teachers were adminis-
tered the knowledge instrument and the data were subjected to a t test
to ascertain if there were significant differences in the groups. The
same technique was applied to the administering of the AAHPER Youth
Fitness Test. Both groups prepared a ten minute lesson for children
on the AAHPER skills and this lesson was taught to a group of peers.
The lesson was audio-taped and the students were checked on the cri-
terion levels for the teaching skills and the tapes were analyzed for
the interactive skills. The criterion level instrument was recorded
and subjected to analysis utilizing Yates Correction Formula as applied
to a Chi Square. Both the teaching skills and the interactive skills
data were subjected to a t test in order to ascertain if there were
significant differences in the groups in the pre-test.

Each of the groups of preservice teachers began four weeks or
twelve contact hours with the university instructor. The college
students were a. approximately the sophomore or junior level. The
control group was taught at 9:30 A.M., three hours a week, utilizing
the lecture method. The participants received lectures on the physical
fitness skills and engaged with practice sessions with the skills.
They also received lectures in the teaching skills and in interaction
analysis. The control group also engaged in the development of lesson
plans for the clinical experience that they would experience.

The experimental group of teachers had the same instructor as the
control group and was taught at 12:30 P.M. The instructor placed the
experimental group in proceeding through a series of modules designed

to lead to the attainment of the physical fitness skills and through
a series of modules leading to the attainment of the teaching skills
and the interactive skills. Criterion levels were established for the
teachers in both the teaching skills and in the physical fitness skills.

Selection of Elementary Pupils

At the end of four weeks of university instruction, the college
students were to work with elementary pupils in clinical experiences
for a period of four weeks. Two hundred and fourteen elementary pupils
were selected in grades five, six, and seven in a nearby elementary
school. The pupils were screened on the basis of age, race, sex, in-
telligence quotient, grade point average, and social class. The pupils,
after screening, were divided into two groups of thirty-five pupils.
One group of pupils was taught by college students in the control group
and one group of pupils was taught by college students in the experi-
mental group. The composition of the race of the pupils is presented
in Table 10.

TABLE 10

RACE OF BOYS AND GIRLS IN CONTROL AND EXPERIMENTAL GROUPS

Group	White	Negro	Indian	Total
Control	2	1	32	35
Experimental	2	1	32	35

The sex of the pupils was matched and Table 11 presents the com-
position of the groups.

TABLE 11

SEX OF BOYS AND GIRLS IN CONTROL AND EXPERIMENTAL GROUPS

Group	Male	Female	Total
Control	18	17	35
Experimental	18	17	35

The record cards of the pupils in the principal's office were examined and the intelligence quotient of the pupils was obtained from the cards. The test that was utilized in obtaining the intelligence quotient was the California Short-Form Test of Mental Maturity, 1963 revision. The data obtained on the pupils in the control and experimental groups were subjected to a t test and the results of the analysis are presented in Table 12.

TABLE 12

COMPARISON OF MEANS OF INTELLIGENCE QUOTIENT SCORES:
CONTROL VERSUS EXPERIMENTAL GROUPS:
ELEMENTARY BOYS AND GIRLS

Group	Mean	N	df	t	P(.05)
Control	101.54	35	68	.6415*	2.000
Experimental	102.40	35			

*Not significant at the .05 level.

The ages of the boys and girls were subjected to a t test. The results of the analysis are presented in Table 13.

TABLE 13

COMPARISON OF MEANS OF THE AGES OF THE ELEMENTARY PUPILS:
CONTROL VERSUS EXPERIMENTAL GROUPS

Group	Mean	N	df	t	P(.05)
Control	11.65	35			
			68	.2089*	2.000
Experimental	11.60	35			

*Not significant at the .05 level.

The grade point averages of the pupils were gathered from the
pupils' records and converted to a grade point system. The results of
the analysis, after a t test was applied, are presented in Table 14.

TABLE 14

COMPARISON OF MEANS OF GRADE POINT AVERAGES:
CONTROL VERSUS EXPERIMENTAL GROUPS:
ELEMENTARY PUPILS

Group	Mean	N	df	t	P(.05)
Control	2.62	35			
			68	.0678*	2.000
Experimental	2.62	35			

*Not significant at the .05 level.

The analysis revealed that there were no significant differences in the
groups relating to grade point averages.

The social class for the pupils was obtained in the same manner
as for the preservice teachers, utilizing the same instrument. Table
15 provides a summary of the social class of the children in the two
groups.

TABLE 15

SUMMARY OF THE SOCIAL CLASS OF THE ELEMENTARY PUPILS:
CONTROL VERSUS EXPERIMENTAL GROUPS

Group	Lower-Lower	Middle-Lower	Upper-Lower	Lower-Middle	Upper-Middle	Total
Control	3	0	28	0	4	35
Experimental	3	0	28	0	4	35
Total	6	0	56	0	8	70

The scores of the pupils obtained from the social class scale were
subjected to a t test to determine whether there were significant dif-
ferences in the groups. The results of the analysis are presented in
Table 16.

TABLE 16

COMPARISON OF MEANS OF SOCIAL STATUS:
CONTROL VERSUS EXPERIMENTAL GROUPS:
ELEMENTARY BOYS AND GIRLS

Group	Mean	N	df	t	P(.05)
Control	58	35	68	.3817*	.000
Experimental	57	35			

*Not significant at the .05 level.

Knowledge Testing Instrument
for Elementary Pupils

The knowledge testing instrument for the elementary pupils con-
sisted of the development of thirty-six test items which were submitted
to a panel of eight teachers--a reading specialist, two elementary

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physical education specialists, and five college physical education professors. The panel ranked the question with regard to the reading level and the applicability of the questions for boys and girls. Twenty of the questions that were ranked highest by the panel were selected and included as the testing instrument for the boys and girls. The reliability of the test was determined by using the Spearman-Brown Split-Half reliability method. The reliability coefficient was established as .98.

Process Testing for Elementary Pupils

The process for the boys and girls in the elementary school was the acquisition of the physical education skills in the AAHPER Youth Fitness Test. The data from the boys and girls were analyzed and subjected to a t test to determine if there were significant differences between the boys and girls taught by the control group of teachers and the experimental group of teachers.

General Procedures for the
Clinical Experiences

At the end of the university experience (four weeks) the teachers in the control and the experimental groups worked in clinical experiences with small groups of elementary pupils for a period of four weeks. The control group proceeded through a regular conventional program with their pupils, developing lesson plans for the teaching of the AAHPER skills. The experimental group of teachers developed criterion levels for the pupils in their group. Each preservice teacher in both the control and experimental groups was assigned seven pupils to work with during the four week period. The college instructor worked as a

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clinical professor, conducting on-site instruction with both groups of teachers as they worked with the public school pupils.

At the beginning of the four weeks of clinical experience, the elementary pupils were administered the knowledge instrument and the AAHPER skills. The data obtained were subjected to a t test in order to determine if there were significant differences in the groups. At the end of the four week period, the elementary pupils were tested again and the data subjected to the same analysis. An additional audio-tape was made of the teachers teaching both groups of public school pupils. This tape was analyzed for the teaching skills of the pre-service teachers and in terms of the interactive skills. The data obtained were subjected to analysis utilizing the same Chi Square and t scores which had been utilized previously in the analyzation of the data for the university portion of the study.

Elementary Social Studies
(Pembroke State University)

Two groups of senior elementary preservice teachers were selected for participation in the study. The records of all student teachers at Pembroke State University were studied in order to find two groups of students that could be matched on the basis of age, sex, race, scholastic aptitude test scores, grade point averages and social class. The scores of the selected groups are presented in Tables 17 and 18.

Analysis was completed on each of the factors in the tables and it was determined that there were no significant differences in the groups with regard to SAT, GPA, Age, Sex, Race, or Social Class Index Scores.

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TABLE 17

MASTER ROSTER OF PRESERVICE TEACHERS IN THE CONTROL GROUP ELEMENTARY SOCIAL STUDIES

Student	SAT	GPA	Age	Sex	Race	Social Class Index Score
1	789	3.250	24	M	W	57-UL
2	751	2.400	22	M	W	38-LM
3	8.4	2.750	30	M	W	57-UL
4	9.4	3.842	24	F	W	48-LM
5	796	3.833	22	F	W	46-LM
6	985	3.705	20	F	W	54-UL
7	1069	3.312	22	F	W	57-UL
8	722	3.200	22	F	W	43-LM
9	791	3.000	21	F	I	37-UM

TABLE 18

MASTER ROSTER OF PRESERVICE TEACHERS IN THE EXPERIMENTAL GROUP ELEMENTARY SOCIAL STUDIES

Student	SAT	GPA	Age	Sex	Race	Social Class Index Score
1	805	3.166	25	M	W	57-UL
2	757	2.600	22	M	W	48-LM
3	811	2.684	31	M	W	54-Ul
4	962	4.000	24	F	W	48-LM
5	788	3.800	21	F	W	51-LM
6	982	3.600	21	F	W	62-UL
7	1078	3.375	21	F	W	57-UL
8	718	3.250	21	F	W	48-LM
9	783	3.000	21	F	I	37-UM

A knowledge instrument was devised by having three college professors submit questions on the skills of teaching. The panel of professors selected thirteen questions relating to the teaching skills to utilize in the testing of the teachers.

There was no process for testing the social studies teachers. Originally, it was intended to measure the interactions of the teachers by analysis of video tape. However, it became evident that the lack of video facilities in sufficient quantity would severely inhibit the acquisition of the teaching skills. Therefore, it was determined inadvisable to attempt to define and measure the process skills for the teachers.

The product of the teachers was the teaching skills described in the elementary physical education study. The same modules were utilized by the social studies teachers.

The knowledges of the elementary students were measured by having the college student prepare a series of questions for the elementary pupils in the content areas of social studies. The questions were approved by the classroom teacher and by the college professor in charge of the research study. The testing instrument consisted of thirty-three questions.

There was no process testing of the boys and girls in the study. The college teachers worked for a period of ten weeks with the boys and girls and each college student worked with from thirty to thirty-five boys and girls. Some of the college students were located nearly one hundred miles from the college campus and the problem of getting video tape recording equipment to the classrooms was insurmountable.

However, the taping of the lessons with the use of audio-tape provided evidence for the analysis of the teaching skills.

The elementary students were selected by selecting every fifth student from rosters submitted by the college students. The analysis of the students' scores on achievement, IQ, social class, race and sex revealed that there were no significant differences in those students taught by teachers in the control group and in those students taught by teachers in the experimental group. The selection of the students, utilizing the random method described, provided two groups of thirty-five pupils, one group taught by teachers in the control group and one group taught by teachers in the experimental group.

The preservice teachers were provided two weeks of intense training on the college campus. As a portion of the training of the teachers, the control group received lectures on the skills of teaching. The experimental group proceeded through the modules on the teaching skills. The knowledges of the teachers were pretested at the beginning of the experience.

At the end of the two week period, the teachers moved into the clinical experience. There were visited four times during the ten week clinical experience by college professors. There was no opportunity for on-site instruction. All areas described above were pre-tested and post-tested in order to measure any change in both the teachers and in the elementary pupils. All analyses of the teaching lessons were accomplished by the same trained analyst.

Elementary Social Studies
(Xavier University of New Orleans)

Two groups of senior elementary preservice teachers were selected

for the study. The scores of the two groups were matched on the basis

of quality point average, age, sex, race, and social class. It was

intended to match the groups on scholastic aptitude scores; however,

these scores were not available for all the students. Tables 19 and

20 present the scores of the groups.

TABLE 19

MASTER ROSTER OF PRESERVICE TEACHERS IN THE CONTROL GROUP
XAVIER UNIVERSITY OF NEW ORLEANS

Student	QPA	Age	Sex	Race	Social Class Index Score
1	2.600	37	F	N	66-UL
2	2.752	33	F	N	57-UL
3	2.190	24	F	N	54-UL
4	2.161	32	F	N	66-UL
5	2.871	30	M	N	58-UL

TABLE 20

MASTER ROSTER OF PRESERVICE TEACHERS IN THE EXPERIMENTAL GROUP
XAVIER UNIVERSITY OF NEW ORLEANS

Student	QPA	Age	Sex	Race	Social Class Index Score
1	2.660	35	F	W	61-UL
2	2.745	23	F	N	52-UL
3	2.420	38	F	N	54-UL
4	2.440	31	F	N	48-LM
5	2.537	37	F	N	57-UL

The research team was disappointed in the number of teachers that could be included in the study. The number is so small that the results of the study would not be valid. However, because the procedures had been established, it was determined to proceed with the study at Xavier University.

The procedures in the study were the same at Xavier University as they were in the area of social studies at Pembroke State University with the exception of the time that was available for the university portion of the program. The college students were on campus for two days and then reported for the clinical experiences. The college students returned to the campus one night each week during the period of the clinical experiences for the university portion of the program. The students were visited by the college professors approximately four times. Again, as in the case of the Pembroke study in social studies, the college students did not receive on-site instruction.

Presentation and Analysis of Data

The purpose of this study has been to compare modularly trained preservice teachers with conventionally trained preservice teachers. The design of the research attempted to measure the knowledges of the preservice teachers, the processes of elementary physical education teachers, and the product of the preservice teachers. The study also measured the knowledges of boys and girls and the processes of the boys and girls in the physical education study. The research study was really three separate studies--one study in elementary physical education at Pembroke State University, one study in elementary social studies at Pembroke State University, and a study in elementary

social studies at Xavier University of New Orleans.

With regard to the research design and the hypotheses delineated, the presentation and discussion of the analysis of data will be presented in the order of knowledges, processes, and product of preservice teachers. Then the knowledges and processes of the elementary pupils will be discussed.

Knowledges of Preservice Teachers

Hypothesis I. There is no significant difference in the performance on selected cognitive objectives between preservice elementary teachers in elementary social studies and elementary physical education prepared in a CBTE program and teachers prepared in a conventional program.

The analysis of the data for the pre-tests of the preservice teachers relating to knowledges is presented in Table 21.

TABLE 21

COMPARISON OF MEANS: KNOWLEDGES: PRESERVICE TEACHERS:
PRETEST: CONTROL VERSUS EXPERIMENTAL GROUPS

School	Group	Mean	N	df	t	P(.05)
Xavier University	Control	3.20	5	8	.0000*	3.306
	Experimental	3.20	5			
Pembroke State Univ. (Social Studies)	Control	5.00	9	16	1.0607*	2.120
	Experimental	14.00	9			
Pembroke State Univ. (Elementary Physical Education)	Control	14.60	15	28	.2103*	2.048
	Experimental	14.80	15			

*Not significant at the .05 level.

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An examination of Table 21 reveals that there were no significant differences between the control and the experimental groups in knowledges when the data were subjected to a t test.

After the experimental and the control groups had proceeded through twelve weeks of modules and experiences, the groups were divided and post-tested. The data were subjected to a t test and the results of analysis are presented in Table 22.

TABLE 22

COMPARISON OF MEANS: KNOWLEDGES: PRESERVICE TEACHERS:
POSTTEST CONTROL VERSUS EXPERIMENTAL GROUPS

School	Group	Mean	N	df	t	P(.05)
Xavier University	Control	2.80	5	8	2.1380*	2.306
	Experimental	6.00	5			
Pembroke State Univ. (Social Studies	Control	7.60	9	16	.4837*	2.120
	Experimental	7.70	9			
Pembroke State Univ. (Elementary Physical Education)	Control	20.13	15	28	.6617*	2.048
	Experimental	20.73	15			

*Not significant at the .05 level.

Table 22 reveals that there were no significant differences between the experimental and the control groups on the post-test with regard to knowledges. It would appear that the hypothesis is supported. There are no significant differences between CBTE teachers and conventional teachers with regard to knowledges.

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Process Objectives of Preservice Teachers

Hypothesis 11. There is no significant difference in the performance on selected process objectives between elementary preservice teachers prepared in a CBTE program and teachers prepared in a conventional program.

The process objectives for the elementary physical education preservice teachers were the skills on the AAHPER Youth Fitness Test. Criterion levels were established for the preservice teachers and the data were subjected to Yates Correction Formula as applied to a Chi Square. (A later analysis was performed on all criterion analyses utilizing Fisher's Exact Test for Comparing Two Proportions. The analysis utilizing Fisher's formula did not alter the findings of the Yates formula.) The results of the pre-test on the AAHPER Skills for male preservice teachers are presented in Table 23.

An examination of the table reveals that there were two areas in which there were significant differences between the experimental and control groups on the pre-test. In the skills of the shuttle run and the fifty yard dash, the control group scored higher than the experimental group and the differences were significant.

The same data were subjected to normative analysis and Table 24 presents the results of the t test for the male students on the pre-test. There were significant differences between the control and the experimental groups on the pre-test in the skills of the shuttle run and the fifty yard dash.

The female preservice teachers were also pre-tested on their attainment of the criterion levels established for them. The data were analyzed and the results of the criterion analysis are presented in Table 25. The table reveals that there were no significant differences

TABLE 23

COMPARISON OF SCORES: CRITERION ANALYSIS: AAHPER SKILLS TEST:
PROCESS PRETEST: MALE PRESERVICE TEACHERS

Skill	Group	N	df	x^2	P(.05)
Pull-ups	Control	9	1	.9351*	3.841
	Experimental	9			
Sit-ups	Control	9	1	2.8929*	3.841
	Experimental	9			
Shuttle Run	Control	9	1	11.0250**	3.841
	Experimental	9			
Broad Jump	Control	9	1	.8889*	3.841
	Experimental	9			
Fifty yard Dash	Control	9	1	8.0000**	3.841
	Experimental	9			
Softball Throw	Control	9	1	.3214*	3.841
	Experimental	9			
600 Yard Run-Walk	Control	9	1	1.6000*	3.841
	Experimental	9			

* Not significant at the .05 level.
** Significant at the .05 level.

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TABLE 24

COMPARISON OF MEANS: AAHPER SKILLS TEST: PROCESS PRETEST:
MALE PRESERVICE TEACHERS

Skill	Group	Mean	N	df	t	P(.05)
Pull-ups	Control	7.33	9	16	.8471*	2.120
	Experimental	5.88	9			
Sit-ups	Control	57.88	9	16	1.9121*	2.120
	Experimental	45.33	9			
Shuttle Run	Control	9.12	9	16	4.9570**=	2.120
	Experimental	9.87	9			
Broad Jump	Control	98.66	9	16	1.1031*	2.120
	Experimental	93.44	9			
Fifty Yard Dash	Control	6.0	9	16	5.3050**	2.120
	Experimental	6.6	9			
Softball Throw	Control	2291	9	16	.4351*	2.120
	Experimental	2373	9			
600 Yard Run-Walk	Control	1:48.4	9	16	.8768*	2.120
	Experimental	1:52.6	9			

* Not significant at the .05 level.
** Significant at the .05 level.

TABLE 25

COMPARISON OF SCORES: CRITERION ANALYSIS: AAHPER SKILLS TEST:
PROCESS PRETEST: FEMALE PRESERVICE TEACHERS

Skill	Group	N	df	x^2	P(.05)
Flexed Arm Hang	Control	6	1	.0000*	3.841
	Experimental	6			
Sit-ups	Control	6	1	3.3750*	3.841
	Experimental	6			
Shuttle Run	Control	6	1	.0000*	3.841
	Experimental	6			
Broad Jump	Control	6	1	.3750*	3.841
	Experimental	6			
Fifty-Yard Dash	Control	6	1	1.7778*	3.841
	Experimental	6			
Softball Throw	Control	6	1	.6000*	3.841
	Experimental	6			
600 Yard Run-Walk	Control	6	1	.3750*	3.841
	Experimental	6			

* Not significant at the .05 level.

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between the control and the experimental groups in the attainment of
the criterion levels for any of the skills.

The same data were subjected to normative analysis utilizing a
t test. The results of the analysis are presented in Table 26. The
results indicate that there were significant differences between the
experimental and the control groups on the pre-test in the skills of
sit-ups and the fifty yard dash.

Because there were significant differences between both the males
and females on the pre-test with regard to some of the AAHPER skills,
and since the differences could not be accounted for, it was deter-
mined to measure the height and weight of the control and the experi-
mental groups to ascertain if this might account for the significant
differences. The analysis of the height and weight of both groups re-
vealed that there were no significant differences between the groups
with regard to height or weight.

The preservice teachers received twelve hours of college instruc-
tion and then entered into a clinical experience for an additional
twelve hours in which they worked with boys and girls. The control
group received conventional instruction and the experimental group
proceeded through a series of modules designed to provide them with
the AAHPER skills. At the end of the twenty-four hours of experiences,
the preservice teachers were provided a post-test to measure the acqui-
sition of the skills. The data obtained were subjected to analysis
utilizing chi square for criterion analysis and a t test for norma-
tive analysis.

Table 27 provides the results of the analysis for the male teachers
as they attempted to reach the criterion levels that had been prescribed

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TABLE 26

COMPARISON OF MEANS: AAHPER SKILLS TEST: PROCESS PRETEST: FEMALE PRESERVICE TEACHERS

Skill	Group	Mean	N	df	t	P(.05)
Flexed Arm Hang	Control	6.83	6	10	1.4186*	2.228
	Experimental	3.91	6			
Sit-ups	Control	22.83	6	10	2.2512**	2.228
	Experimental	16.33	6			
Shuttle Run	Control	11.36	6	10	1.4056*	2.228
	Experimental	12.26	6			
Standing Broad Jump	Control	66	6	10	.1037*	2.228
	Experimental	60	6			
Fifty Yard Dash	Control	8.00	6	10	2.6120**	2.228
	Experimental	9.15	6			
Softball Throw	Control	76.93	6	10	.6029*	2.228
	Experimental	85.56	6			
600 Yard Run-Walk	Control	2:49.6	6	10	1.9694*	2.228
	Experimental	3:15.3	6			

* Not significant at the .05 level.
** Significant at the .05 level.

TABLE 27

COMPARISON OF SCORES: CRITERION ANALYSIS: AAHPER SKILLS TEST:
PROCESS POSTTEST: MALE PRESERVICE TEACHERS

Skill	Group	N	df	x^2	P(.05)
Pull-ups	Control	9	1	.0000*	3.841
	Experimental	9			
Sit-ups	Control	9	1	.5625*	3.841
	Experimental	9			
Shuttle Run	Control	9	1	.0000*	3.841
	Experimental	9			
Broad Jump	Control	9	1	.0000*	3.841
	Experimental	9			
Fifty-Yard Dash	Control	9	1	.0000*	3.841
	Experimental	9			
Softball Throw	Control	9	1	3.5536*	3.841
	Experimental	9			
600 Yard Run-Walk	Control	9	1	4.4308**	3.841
	Experimental	9			

  * Not significant at the .05 level.
** Significant at the .05 level.

by the college instructor. The table reveals that there were no significant differences between the control and the experimental group in the acquisition of the criterion levels except in the area of the six hundred yard run-walk.

Table 28 provides the results of the normative analysis for the acquisition of the AAHPER skills for the male teachers on the post-test. The table reveals that there were significant differences between the control and the experimental groups on the skill of sit-ups, with the experimental group mean exceeding the mean of the control group.

The same analysis was completed for the female teachers. The results of the analysis of the post-test with regard to the criterion levels on the attainment of the skills are presented in Table 29. An examination of the table reveals that there were no significant differences between the control and the experimental groups on the post-test.

Normative analysis was accomplished for the same data and the results of the analysis for the female teachers is presented in Table 30. The table reveals that there were no significant differences between the control and the experimental groups in the attainment of the skills on the post-test.

It would appear that the hypothesis is partially supported. Because there were significant differences between the control and the experimental groups on the pre-test in the areas of the shuttle run and the fifty yard dash for the males and in the areas of sit-ups and the fifty yard dash for the females, and since there was no difference between the groups on the post-test, it would appear that the experimental group exceeded the control group in these areas. The post-test for the

TABLE 28

COMPARISON OF MEANS: AAHPER SKILLS TEST: PROCESS POSTTEST:
MALE PRESERVICE TEACHERS

Skill	Group	Mean	N	df	t	P(.05)
Pull-ups	Control	9.11	9	16	.1380*	2.120
	Experimental	8.88	9			
Sit-ups	Control	70.44	9	16	2.1446**	2.120
	Experimental	87.55	9			
Shuttle Run	Control	8.72	9	16	.0000*	2.120
	Experimental	8.72	9			
Broad Jump	Control	99.77	9	16	.1724*	2.120
	Experimental	100.33	9			
Fifty Yard Dash	Control	5.85	9	16	1.3198*	2.120
	Experimental	5.98	9			
Softball Throw	Control	2303.77	9	16	1.8771*	2.120
	Experimental	2570.66	9			
600 Yard Run-Walk	Control	1:44.55	9	16	2.1152*	2.120
	Experimental	1:37.33	9			

* Not significant at the .05 level.
** Significant at the .05 level.

TABLE 29

COMPARISON OF SCORES: CRITERION ANALYSIS: AAHPER SKILLS TEST:
PROCESS POSTTEST: FEMALE PRESERVICE TEACHERS

Skill	Group	N	df	x^2	P(.05)
Flexed Arm Hang	Control	6	1	.0000*	3.841
	Experimental	6			
Sit-ups	Control	6	1	.0000*	3.841
	Experimental	6			
Shuttle Run	Control	6	1	.6000*	3.841
	Experimental	6			
Broad Jump	Control	6	1	.3750*	3.841
	Experimental	6			
Fifty Yard Dash	Control	6	1	.0000*	3.841
	Experimental	6			
Softball Throw	Control	6	1	.0000*	3.841
	Experimental	6			
600 Yard Run-Walk	Control	6	1	.0000*	3.841
	Experimental	6			

* Not significant at the .05 level.

TABLE 30

COMPARISON OF MEANS: AAHPER SKILLS TEST: PROCESS POSTTEST:
FEMALE PRESERVICE TEACHERS

Skill	Group	Mean	N	df	t	P(.05)
Flexed Arm Hang	Control	7.58	6	10	.5475*	2.228
	Experimental	5.70	6			
Sit-ups	Control	27	6	10	1.0518*	2.228
	Experimental	32	6			
Shuttle Run	Control	10.60	6	10	1.3667*	2.228
	Experimental	11.20	6			
Standing Broad Jump	Control	67.83	6	10	.0760*	2.228
	Experimental	68.16	6			
Fifty Yard Dash	Control	7.7	6	10	1.5881*	2.228
	Experimental	8.3	6			
Softball Throw	Control	83.16	6	10	1.1571*	2.228
	Experimental	98.83	6			
600 Yard Run-Walk	Control	2:48.8	6	10	.6204*	2.228
	Experimental	2:56.8	6			

* Not significant at the .05 level.

males indicated that there were significant differences between the control and the experimental groups in the skills of the six hundred yard run-walk and sit-ups, with the experimental group exceeding the control group.

It would appear that the male experimental group exceeded the control group in four of the seven skills. The female experimental group exceeded the control group in two of the skills. In the total group, i.e. the combined male and female, the experimental group exceeded the control group in the acquisition of four of the seven skills.

Product of Preservice Teachers

Hypothesis III. There is no significant difference in the performance on teaching and interactive skills between elementary preservice teachers in social studies and physical education prepared in a CBTE program and teachers prepared in a conventional program.

The preservice teachers were pre-tested on nine teaching skills and the interactive skills. The control group of teachers proceeded through a conventional program, consisting of lectures and readings. The experimental group proceeded through a series of modules designed to provide proficiency in the teaching and the interactive skills. At the end of the study, after the teachers had completed the clinical phase of the program they were post-tested in order to ascertain if there were significant differences between the control and the experimental groups.

With regard to the teaching skills, criterion levels were established for the teachers and the data obtained were subjected to analysis utilizing chi square. The same data were subjected to normative analysis utilizing a $\underline{t}$ test. The interactive skills of the teachers

were audio-taped and analysis was accomplished relative to the interactive skills. The data were subjected to a t test.

The results of criterion analysis of the pre-test of the teachers at Xavier University are presented in Table 31. The normative analysis of the data is presented in Table 32. The results of the analysis of the data on the interactive skills are presented in Table 33. There were no significant differences between the control and the experimental groups on the pre-test for any of the skills measured.

The criterion analysis for the preservice teachers at Pembroke State University in the area of social studies is presented in Table 34. The table indicates that there were no significant differences between the control and the experimental groups in any of the teaching skills. The normative analysis for the pre-test on the teaching skills is presented in Table 35. An examination of the table reveals that there were significant differences on the pre-test in the skill of summarization in favor of the control group. The analysis for the interactive skills is presented in Table 36. This analysis revealed that there were no significant differences between the control and the experimental group in the interactive skills.

Tables 37 and 38 provide the results of the criterion and the normative analyses of the teaching skills. Table 39 summarizes the analysis of the pre-test for the Pembroke State University study in elementary physical education. An examination of Tables 37, 38, and 39 reveals that in the area of elementary physical education, there was no difference between the control and the experimental groups in either the teaching skills or the interactive skills.

TABLE 31

COMPARISON OF SCORES: CRITERION ANALYSIS: TEACHING SKILLS:
PRETEST: PRESERVICE TEACHERS: XAVIER UNIVERSITY

Skill	Groups	N	df	x^2	P(.05)
Establishing Readiness	Control	5	1	.0000*	3.841
	Experimental	5			
Presentation	Control	5	1	.0000*	3.841
	Experimental	5			
Reinforcement	Control	5	1	.0000*	3.841
	Experimental	5			
Repetition	Control	5	1	.0000*	3.841
	Experimental	5			
Questioning	Control	5	1	.1440*	3.841
	Experimental	5			
Variety in Presentation	Control	5	1	.0000*	3.841
	Experimental	5			
Prompting	Control	5	1	.0000*	3.841
	Experimental	5			
Use of Examples	Control	5	1	.0000*	3.841
	Experimental	5			
Summarization	Control	5	1	.0000*	3.841
	Experimental	5			

* Not significant at the .05 level.

TABLE 32

COMPARISON OF MEANS: TEACHING SKILLS: PRETEST: PRESERVICE
TEACHERS: XAVIER UNIVERSITY

Skill	Group	Mean	N	df	t	P(.05)
Establishing Readiness	Control	4.80	5	8	.6950*	2.306
	Experimental	6.80	5			
Presentation	Control	3.80	5	8	.4960*	2.306
	Experimental	5.20	5			
Reinforcement	Control	.20	5	8	1.918*	2.306
	Experimental	5.00	5			
Repetition	Control	0	5	8	.0000*	2.306
	Experimental	0	5			
Questioning	Control	2.20	5	8	.731*	2.306
	Experimental	5.60	5			
Variety in Presentation	Control	0	5	8	.0000*	2.306
	Experimental	0	5			
Prompting	Control	0	5	8	.0000*	2.306
	Experimental	0	5			
Use of Examples	Control	0	5	8	.0000*=	2.306
	Experimental	0	5			
Summarization	Control	0	5	8	.0000*	2.306
	Experimental	0	5			

* Not significant at the .05 level.

TABLE 33

COMPARISON OF MEANS: INTERACTIVE SKILLS: PRETEST: PRESERVICE
TEACHERS: XAVIER UNIVERSITY

Skill	Group	Mean	N	df	t	P(.05)
Teacher Initiated Talk	Control	16.00	5	8	1.326*	2.306
	Experimental	31.40	5			
Teacher Response Talk	Control	17.00	5	8	.928*	2.306
	Experimental	10.40	5			
Pupil Initiated Talk	Control	24.80	5	8	.282*	2.306
	Experimental	21.20	5			
Pupil Response Talk	Control	62.60	5	8	.623*	2.306
	Experimental	57.00	5			
Silence	Control	0	5	8	.0000*	2.306
	Experimental	0	5			

* Not significant at the .05 level.

TABLE 34

COMPARISON OF SCORES: CRITERION ANALYSIS: TEACHING SKILLS:
PRETEST:PRESERVICE TEACHERS: PEMBROKE STATE UNIVERSITY
(SOCIAL STUDIES)

Skill	Group	N	df	x^2	P(.05)
Establishing Readiness	Control	9	1	.0000*	3.841
	Experimental	9			
Presentation	Control	9	1	2.893*	3.841
	Experimental	9			
Reinforcement	Control	9	1	1.600*	3.841
	Experimental	9			
Repetition	Control	9	1	.0000*	3.841
	Experimental	9			
Questioning	Control	9	1	1.108*	3.841
	Experimental	9			
Variety in Presentation	Control	9	1	.0000*	3.841
	Experimental	9			
Prompting	Control	9	1	.0000*	3.841
	Experimental	9			
Use of Examples	Control	9	1	.0000*	3.841
	Experimental	9			
Summarization	Control	9	1	2.250*	3.841
	Experimental	9			

* Not significant at the .05 level.

TABLE 35

COMPARISON OF MEANS: TEACHING SKILLS: PRETEST: PRESERVICE
TEACHERS: PEMBROKE STATE UNIVERSITY (SOCIAL STUDIES)

Skill	Group	Mean	N	df	t	P(.05)
Establishing Readiness	Control	.56	9	16	.2372*	2.120
	Experimental	.44	9			
Presentation	Control	5.33	9	16	1.6320*	2.120
	Experimental	2.98	9			
Reinforcement	Control	6	9	16	1.9033*	2.120
	Experimental	2	9			
Repetition	Control	.22	9	16	.4114*	2.120
	Experimental	.11	9			
Questioning	Control	2.3	9	16	1.8284*	2.120
	Experimental	.6	9			
Variety in Presentation	Control	1.2	9	16	1.624*	2.120
	Experimental	.44	9			
Prompting	Control	0	9	16	1.0091*	2.120
	Experimental	.111	9			
Use of Examples	Control	.56	9	16	1.6726*	2.120
	Experimental	0	9			
Summarization	Control	.89	9	16	2.1823**	2.120
	Experimental	.44	9			

   * Not significant at the .05 level.
  ** Significant at the .05 level.

TABLE 36

COMPARISON OF MEANS: INTERACTIVE SKILLS: PRETEST: PRESERVICE
TEACHERS: PEMBROKE STATE UNIVERSITY (SOCIAL STUDIES)

Skill	Group	Mean	N	df	t	P(.05)
Teacher Initiated Talk	Control	92	9	16	1.2669*	2.120
	Experimental	106	9			
Teacher Response Talk	Control	13	9	16	1.2196*	2.120
	Experimental	6	9			
Pupil Initiated Talk	Control	3.1	9	16	.5694*	2.120
	Experimental	1.9	9			
Pupil Response Talk	Control	10.6	9	16	1.6443*	2.120
	Experimental	4.1	9			
Silence	Control	0	9	16	.0000*	2.120
	Experimental	0	9			

* Not significant at the .05 level.

TABLE 37

COMPARISON OF SCORES: CRITERION ANALYSIS: TEACHING SKILLS:
PRETEST: PRESERVICE TEACHERS: PEMBROKE STATE UNIVERSITY
(ELEMENTARY PHYSICAL EDUCATION)

Skill	Group	N	df	x^2	P(.05)
Establishing Readiness	Control	15	1	.0000*	3.841
	Experimental	15			
Presentation	Control	15	1	.0000*	3.641
	Experimental	15			
Reinforcement	Control	15	1	.0000*	3.841
	Experimental	15			
Repetition	Control	15	1	.0000*	3.841
	Experimental	15			
Questioning	Control	15	1	.0000*	3.841
	Experimental	15			
Variety in Presentation	Control	15	1	.0000*	3.841
	Experimental	15			
Prompting	Control	15	1	.0000*	3.841
	Experimental	15			
Use of Examples	Control	15	1	.0000*	3.841
	Experimental	15			
Summarization	Control	15	1	.0000*	3.841
	Experimental	15			

* Not significant at the .05 level.

TABLE 38

COMPARISON OF MEANS: TEACHING SKILLS: PRETEST: PRESERVICE
TEACHERS: PEMBROKE STATE UNIVERSITY (ELEMENTARY PHYSICAL
EDUCATION)

Skill	Group	Mean	N	df	t	P(.05)
Establishing Readiness	Control	0	15	28	.0000*	2.048
	Experimental	0	15			
Presentation	Control	0	15	28	.0000*	2.048
	Experimental	0	15			
Reinforcement	Control	0	15	28	.0000*	2.048
	Experimental	0	15			
Repetition	Control	0	15	28	.0000*	2.048
	Experimental	0	15			
Questioning	Control	0	15	28	.0000*	2.048
	Experimental	0	15			
Variety in Presentation	Control	0	15	28	.0000*	2.048
	Experimental	0	15			
Prompting	Control	0	15	28	.0000*	2.048
	Experimental	0	15			
Use of Examples	Control	0	15	28	.0000*	2.048
	Experimental	0	15			
Summarization	Control	0	15	28	.0000*	2.048
	Experimental	0	15			

* Not significant at the .05 level.

TABLE 39

COMPARISON OF MEANS: INTERACTIVE SKILLS: PRETEST: PRESERVICE
TEACHERS: PEMBROKE STATE UNIVERSITY (ELEMENTARY PHYSICAL
EDUCATION)

Skill	Group	Mean	N	df	t	P(.05)
Teacher Initiated Talk	Control	120	15	28	.0000*	2.048
	Experimental	120	15			
Teacher Response Talk	Control	0	15	28	.0000*	2.048
	Experimental	0	15			
Pupils Initiated Talk	Control	0	15	28	.0000*	2.048
	Experimental	0	15			
Pupil Response Talk	Control	0	15	28	.0000*	2.048
	Experimental	0	15			
Silence	Control	0	15	28	.0000*	2.048
	Experimental	0	15			

* Not significant at thc .05 level.

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After twelve weeks of college and clinical experiences, the pre-service teachers were tested on teaching and interactive skills. Table 40 presents the summary of the analysis of the Xavier University teachers on the criterion level of the post-test. There were no significant differences between the control and the experimental groups.

Table 41 presents the normative analysis of the post-test on teaching skills. There was a significant difference between the control and the experimental group with the mean of the experimental group scoring higher in the skill of questioning. There were no significant differences in the remainder of the skills.

Table 42 compares the means of the groups on the post-test of interactive skills. There were no significant differences between the groups at Xavier University on the post-test.

Tables 43 and 44 provide a summary of the criterion analysis and the normative analysis on the post-test of the Pembroke State University teachers in the teaching skills. There was a significant difference in favor of the control group on the skill of using examples in Table 44. There were no significant differences between the groups on any of the other teaching skills.

Table 45 provides a summary of the analysis of the Pembroke social studies teachers in the interactive skills. The table reveals that there were no significant differences between the control and the experimental groups in these skills.

The results of the criterion analysis of the teaching skills for the elementary physical education teachers are provided in Table 46. On the post-test, the experimental group exceeded the control group

TABLE 40

COMPARISON OF SCORES: CRITERION ANALYSIS: TEACHING SKILLS:
POSTTEST: PRESERVICE TEACHERS: XAVIER UNIVERSITY

Skill	Group	N	df	x^2	P(.05)
Establishing Readiness	Control	5	1	.0000*	3.841
	Experimental	5			
Presentation	Control	5	1	.0000*	3.841
	Experimental	5			
Reinforcement	Control	5	1	.0000*	3.841
	Experimental	5			
Repetition	Control	5	1	.0000*	3.841
	Experimental	5			
Questioning	Control	5	1	1.905*	3.841
	Experimental	5			
Variety in Presentation	Control	5	1	.0000*	3.841
	Experimental	5			
Prompting	Control	5	1	.0000*	3.841
	Experimental	5			
Use of Examples	Control	5	1	.625*	3.841
	Experimental	5			
Summarization	Control	5	1	.0000*	3.841
	Experimental	5			

* Not significant at the .05 level.

TABLE 41

COMPARISON OF MEANS: TEACHING SKILLS: POSTTEST: PRESERVICE
TEACHERS: XAVIER UNIVERSITY

Skill	Group	Mean	N	df	t	P(.05)
Establishing Readiness	Control	11.4	5	8	.8102*	2.306
	Experimental	9.8	5			
Presentation	Control	19.20	5	8	.0000*	2.306
	Experimental	19.20	5			
Reinforcement	Control	6.6	5	8	.8945*	2.306
	Experimental	2.2	5			
Repetition	Control	3.80	5	8	.7725*	2.306
	Experimental	.80	5			
Questioning	Control	2.40	5	8	2.6834**	2.306
	Experimental	4.80	5			
Variety in Presentation	Control	1.40	5	8	1.0000*	2.306
	Experimental	2.00	5			
Prompting	Control	1.8	5	8	.5721*	2.306
	Experimental	2.4	5			
Use of Examples	Control	3.8	5	8	1.)825*	2.306
	Experimental	18	5			
Summarization	Control	1	5	8	.0000*	2.306
	Experimental	1	5			

* Not significant at the .05 level.
** Significant at the .05 level.

TABLE 42

COMPARISON OF MEANS: INTERACTIVE SKILLS: POSTTEST: PRESERVICE
TEACHERS: XAVIER UNIVERSITY

Skill	Group	Mean	N	df	t	P(.05)
Teacher Initiated Talk	Control	37.6	5	8	.5876*	2.306
	Experimental	41.4	5			
Teacher Response Talk	Control	7.20	5	8	.214*	2.306
	Experimental	6.00	5			
Pupil Initiated Talk	Control	6.00	5	8	.2625*	2.306
	Experimental	4.40	5			
Pupil Response Talk	Control	64.4	5	8	.3593*	2.306
	Experimental	67.8	5			
Silence	Control	0	5	8	.0000*	2.306
	Experimental	0	5			

* Not significant at the .05 level.

TABLE 43

COMPARISON OF SCORES: CRITERION ANALYSIS: TEACHING SKILLS: POSTTEST:
PRESERVICE TEACHERS: PEMBROKE STATE UNIVERSITY (SOCIAL STUDIES)

Skill	Group	N	df	x^2	P(.05)
Establishing Readiness	Control	9	1	.0000*	3.841
	Experimental	9			
Presentation	Control	9	1	.0000*	3.841
	Experimental	9			
Reinforcement	Control	9	1	.935*	3.841
	Experimental	9			
Repetition	Control	9	1	.0000*	3.841
	Experimental	9			
Questioning	Control	9	1	.225*	3.841
	Experimental	9			
Variety in Presentation	Control	9	1	.935*	3.841
	Experimental	9			
Prompting	Control	9	1	.321*	3.841
	Experimental	9			
Use of Examples	Control	9	1	.0000*	3.841
	Experimental	9			
Summarization	Control	9	1	.0000*	3.841
	Experimental	9			

* Not significant at the .05 level.

TABLE 44

COMPARISON OF MEANS: TEACHING SKILLS: POSTTEST: PRESERVICE
TEACHERS: PEMBROKE STATE UNIVERSITY (SOCIAL STUDIES)

Skill	Group	Mean	N	df	t	P(.05)
Establishing Readiness	Control	9.44	9	16	.0819*	2.120
	Experimental	9.55	9			
Presentation	Control	18.8	9	16	.5612*	2.120
	Experimental	19.7	9			
Reinforcement	Control	7.4	9	16	1.2205*	2.120
	Experimental	4.5	9			
Repetition	Control	2.1	9	16	1.6796*	2.120
	Experimental	3.4	9			
Questioning	Control	3.5	9	16	.4414*	2.120
	Experimental	3.1	9			
Variety in Presentation	Control	2.1	9	16	1.2920*	2.120
	Experimental	1.4	9			
Prompting	Control	2.55	9	16	1.9348*	2.120
	Experimental	1.0	9			
Use of Examples	Control	.65	9	16	2.5570**	2.120
	Experimental	0	9			
Summarization	Control	1.0	9	16	.0000*	2.120
	Experimental	1.0	9			

* Not significant at the .05 level.
** Significant at the .05 level.

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TABLE 45

COMPARISON OF MEANS: INTERACTIVE SKILLS: POSTTEST: PRESERVICE TEACHERS: PEMBROKE STATE UNIVERSITY (SOCIAL STUDIES)

Skill	Group	Mean	N	df	t	P(.05)
Teacher Initiated Talk	Control	58	9			
	Experimental	64	9	16	1.0498*	2.120
Teacher Response Talk	Control	13	9			
	Experimental	14	9	16	.2472*	2.120
Pupil Initiated Talk	Control	.55	9			
	Experimental	3.88	9	16	.9663*	2.120
Pupil Response Talk	Control	47	9			
	Experimental	37	9	16	1.5993*	2.120
Silence	Control	0	9			
	Experimental	0	9	16	.0000*	2.120

* Not significant at the .05 level.

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TABLE 46

COMPARISON OF SCORES: CRITERION ANALYSIS: TEACHING SKILLS:
POSTTEST: PRESERVICE TEACHERS: PEMBROKE STATE UNIVERSITY
(ELEMENTARY PHYSICAL EDUCATION)

Skill	Group	N	df	x^2	P(.05)
Establishing Readiness	Control	15	1	.0000*	3.841
	Experimental	15			
Presentation	Control	15	1	.0000*	3.841
	Experimental	15			
Reinforcement	Control	15	1	12.1500**	3.841
	Experimental	15			
Repetition	Control	15	1	.0000*	3.841
	Experimental	15			
Questioning	Control	15	1	19.5475**	3.841
	Experimental	15			
Variety in Presentation	Control	15	1	.0000*	3.841
	Experimental	15			
Prompting	Control	15	1	19.5475**	3.841
	Experimental	15			
Use of Examples	Control	15	1	.0000*	3.841
	Experimental	15			
Summarization	Control	15	1	.0000*	3.841
	Experimental	15			

* Not significant at the .05 level.
** Significant at the .05 level.

in the skills of reinforcement, questioning, and prompting. There were no significant differences between the control and the experimental groups in the other skills.

The normative analysis is presented in Table 47. The experimental group exceeded the control group in the skills of establishing readiness, presentation, reinforcement, questioning, and prompting. There were no significant differences in the other skills.

Table 48 presents the results of the analysis of the interactive skills of the elementary physical education teachers at Pembroke State University. The table reveals that the experimental group exceeded the control group in the areas of teacher initiated talk and in pupil response talk. The scores were significant in these two areas.

It would appear that the hypothesis is partially supported. The experimental group exceeded the control group in the areas of summarization, establishing readiness, presentation, reinforcement, questioning, and prompting. In one study, the control group exceeded the experimental group in the skill of using examples. It would appear that the experimental group exceeded the control group in six of the nine skills.

Knowledge of Elementary Pupils

Hypothesis IV. There is no significant difference in the performance on selected cognitive objectives by pupils in elementary schools who are taught by teachers prepared in conventional programs as compared to pupils taught by teachers prepared in CBTE programs.

At the beginning of the clinical experience, the elementary pupils were pre-tested by the preservice teachers. The results of the pre-test are presented in Table 49. There were no significant differences between the control and the experimental groups of elementary pupils on

TABLE 47

COMPARISON OF MEANS: TEACHING SKILLS: POSTTEST: PRESERVICE
TEACHERS: PEMBROKE STATE UNIVERSITY (ELEMENTARY PHYSICAL
EDUCATION)

Skill	Group	Mean	N	df	t	P(.05)
Establishing Readiness	Control	10	15	28	2.6272**	2.048
	Experimental	13	15			
Presentation	Control	18	15	28	3.8390**	2.048
	Experimental	24	15			
Reinforcement	Control	1	15	28	4.4795**	2.048
	Experimental	9	15			
Repetition	Control	0	15	28	.9993*	2.048
	Experimental	.1333	15			
Questioning	Control	4	15	28	5.9160**	2.048
	Experimental	13	15			
Variety in Presentation	Control	5	15	28	.0000*	2.048
	Experimental	5	15			
Prompting	Control	1	15	28	9.2166**	2.048
	Experimental	7	15			
Use of Examples	Control	0	15	28	.0000*	2.048
	Experimental	0	15			
Summarization	Control	1	15	28	.0000*	2.048
	Experimental	1	15			

* Not significant at the .05 level.
** Significant at the .05 level.

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TABLE 48

COMPARISON OF MEANS: INTERACTIVE SKILLS: POSTTEST: PRESERVICE
TEACHERS: PEMBROKE STATE UNIVERSITY (ELEMENTARY PHYSICAL
EDUCATION)

Skill	Group	Mean	N	df	t	P(.05)
Teacher Initiated Talk	Control	60	15	28	3.2120**	2.048
	Experimental	41	15			
Teacher Response Talk	Control	24	15	28	2.0359*	2.048
	Experimental	33	15			
Pupil Initiated Talk	Control	1	15	28	.9022*	2.048
	Experimental	0	15			
Pupil Response Talk	Control	36	15	28	3.8743**	2.048
	Experimental	46	15			
Silence	Control	0	15	28	.0000*	2.048
	Experimental	0	15			

* Not significant at the .05 level.
** Significant at the .05 level.

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TABLE 49

COMPARISON OF MEANS: KNOWLEDGES: ELEMENTARY PUPILS: PRETEST: CONTROL VERSUS EXPERIMENTAL GROUPS

School	Group	Mean	N	df	t	P(.05)
Xavier University	Control	17	35	58	2.0452**	2.000
	Experimental	19	35			
Pembroke State University (Social Studies)	Control	17	35	68	.8687*	2.000
	Experimental	18	35			
Pembroke State University (Elementary Physical Education)	Control	9	35	68	.3979*	2.000
	Experimental	9	35			

* Not significant at the .05 level.
** Significant at the .05 level.

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the pre-test for the Pembroke University study in social studies and in elementary physical education. There was a significant difference on the pre-test at Xavier University.

The results of the post-test of the elementary pupils are provided in Table 50. There were no significant differences between the control and the experimental groups at Xavier University and at Pembroke State University in the area of social studies. In the Pembroke State University study in elementary physical education, the mean of the experimental group was 18.4 and the mean of the control group was 15.9. The difference in the means was significant at the .05 level.

It would appear that the hypothesis is partially supported. The elementary pupils in the experimental group in physical education scored significantly higher on the post-test than did the control group at Pembroke State University.

Process of Elementary Pupils

Hypothesis V. There is no significant difference in the performance on selected process objectives by pupils in elementary schools who are taught by teachers prepared in conventional programs as compared to pupils taught by teachers prepared in a CBTE program.

The elementary pupils in the Pembroke State University study in elementary physical education were pre-tested prior to the beginning of the clinical experiences. The pupils were also subjected to analysis regarding the height and weight of the pupils. It was found that there were no significant differences between the experimental and control groups with regard to height or weight.

The results of the analysis of the male elementary pupils on the pre-test are presented in Table 51. The control group exceeded the

TABLE 50

COMPARISON OF MEANS: KNOWLEDGES: ELEMENTARY PUPILS:
POSTTEST: CONTROL VERSUS EXPERIMENTAL GROUPS

School	Group	Mean	N	df	t	P(.05)
Xavier University	Control	20	35	68	1.7396*	2.000
	Experimental	22	35			
Pembroke State University (Social Studies)	Control	24	35	68	.9087*	2.000
	Experimental	25	35			
Pembroke State University (Elementary Physical Education)	Control	15.9	35	68	4.5446**	2.000
	Experimental	18.4	35			

* Not significant at the .05 level.
** Significant at the .05 level.

TABLE 51

COMPARISON OF MEANS: PROCESS: ELEMENTARY PUPILS: AAHPER SKILLS
TEST: PRETEST: CONTROL VERSUS EXPERIMENTAL GROUPS: PEMBROKE
STATE UNIVERSITY (MALE PUPILS)

Skill	Group	Mean	N	df	t	P(.05)
Pull-ups	Control	2.7	18	34	.5837*	2.042
	Experimental	3.3	18			
Sit-ups	Control	34	18	34	.4303*	2.042
	Experimental	30	18			
Shuttle Run	Control	10.7	18	34	.4933*	2.042
	Experimental	10.6	18			
Broad Jump	Control	63	18	34	.0000*	2.042
	Experimental	63	18			
Fifty Yard Dash	Control	7.9	18	34	1.4218*	2.042
	Experimental	8.5	18			
Softball Throw	Control	1353	18	34	2.2621**	2.042
	Experimental	1185	18			
600 Yard Run-Walk	Control	141	18	34	1.6002*	2.042
	Experimental	156	18			

* Not significant at the .05 level.
** Significant at the .05 level.

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experimental group in the skill of the softball throw. The difference
in the means was significant at the .05 level. There were no significant
differences in the other skills.

Table 52 presents the results of the analysis of the female pupils
on the pre-test. There were significant differences in favor of the
experimental groups in the skills of sit-ups and the standing broad
jump. There were no significant differences between the groups with
regard to the other skills.

After the pupils had received four weeks of instruction by the
college students, the elementary pupils were post-tested in order to
ascertain if there were significant differences between the groups.

After four weeks of instruction, the elementary pupils were
tested again in order to ascertain if there were significant differ-
ences in the groups. Table 53 presents the summary of the analysis of
the male elementary pupils. An examination of the table reveals that
there were no significant differences between the control and the ex-
perimental groups on any of the AAHPER skills tested.

Table 54 provides a summary of the analysis of the female ele-
mentary pupils on the post-test. There were significant differences in
favor of the experimental group in the skills of sit-ups, the standing
broad jump, and the six hundred yard run-walk. There were no signifi-
cant differences between the control and the experimental groups in the
other skills tested.

It would appear that the hypothesis was partially supported.
There were significant differences in favor of the experimental group
in the areas of the softball throw for males, and in the areas of sit-ups,

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TABLE 52

COMPARISON OF MEANS: PROCESS: ELEMENTARY PUPILS: AAHPER SKILLS
TEST: PRETEST: CONTROL VERSUS EXPERIMENTAL GROUPS: PEMBROKE
STATE UNIVEPSITY (FEMALE PUPILS)

Skill	Group	Mean	N	df	t	P(.05)
Flexed Arm Hang	Control	5.2	17	32	1.1105*	2.042
	Experimental	7.9	17			
Sit-ups	Control	15	17	32	2.3448**	2.042
	Experimental	24	17			
Shuttle Run	Control	11.8	17	32	1.3173*	2.042
	Experimental	12.5	17			
Standing Broad Jump	Control	55	17	32	2.5941**	2.042
	Experimental	61	17			
Fifty Yard Dash	Control	8.4	17	32	.5693*	2.042
	Experimental	8.2	17			
Softball Throw	Control	682	17	32	.4272*	2.042
	Experimental	714	17			
600 Yard Run-Walk	Control	185	17	32	.8055*	2.042
	Experimental	175	17			

* Not significant at the .05 level.
** Significant at the .05 level.

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TABLE 53

COMPARISON OF MEANS: PROCESS: ELEMENTARY PUPILS: AAHPER SKILLS
TEST: POSTTEST: CONTROL VERSUS EXPERIMENTAL GROUPS: PEMBROKE
STATE UNIVERSITY (MALE PUPILS)

Skill	Group	Mean	N	df	t	P(.05)
Pull-ups	Control	4.9	18	34	.6344*	2.042
	Experimental	5.4	18			
Sit-ups	Control	59	18	34	.7316*	2.042
	Experimental	61	18			
Shuttle Run	Control	10.2	18	34	1.1270*	2.042
	Experimental	9.9	18			
Broad Jump	Control	68	18	34	.6774*	2.042
	Experimental	70	18			
Fifty Yard Dash	Control	7.6	18	34	.0000*	2.042
	Experimental	7.6	18			
Softball Throw	Control	121	18	34	.1275*	2.042
	Experimental	120	18			
600 Yard Run-Walk	Control	2:14	18	34	.6529*	2.042
	Experimental	2:17	18			

* Not significant at the .05 level.

TABLE 54

COMPARISON OF MEANS: PROCESS: ELEMENTARY PUPILS: AAHPER SKILLS:
POSTTEST: CONTROL VERSUS EXPERIMENTAL GROUPS: PEMBROKE STATE
UNIVERSITY (FEMALE PUPILS)

Skill	Group	Mean	N	df	t	P(.05)
Flexed Arm Hang	Control	9	17			
	Experimental	15	17	32	...800*	2.042
Sit-ups	Control	27	17			
	Experimental	43	17	32	5.1328**	2.042
Shuttle Run	Control	11.1	17			
	Experimental	10.7	17	32	1.8240*	2.042
Standing Broad Jump	Control	60	17			
	Experimental	67	17	32	2.8335**	2.042
Fifty Yard Dash	Control	8.1	17			
	Experimental	7.6	17	32	1.8182*	2.042
Softball Throw	Control	66	17			
	Experimental	75	17	32	1.1933*	2.042
600 Yard Run-Walk	Control	2:45	17			
	Experimental	2:28	17	32	2.0468**	2.042

* Not significant at the .05 level.
** Significant at the .05 level.

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the standing broad jump, and the six-hundred-year-run-walk for female elementary pupils.

Summary, Conclusions and Recommendations

The purpose of this study has been to compare modularly trained preservice teachers with conventionally trained preservice teachers in order to ascertain if the modular trained teachers perform significantly better on knowledge objectives, process objectives and product objectives. The study also measured the knowledges and processes of elementary pupils in order to ascertain if the modularly trained teachers produced competency in elementary pupils. The research study was really three separate studies. One study was in elementary physical education and two studies were in the area of elementary social studies.

The preservice teachers had a period of university instruction, with the control group receiving conventional instruction. The experimental group proceeded through a series of modules designed to provide competency in the AAHPER Youth Fitness Skills, and in teaching and interactive skills. Instruments were designed and the teachers were pre- and post-tested relative to the attainment of the skills.

The preservice teachers entered a period of clinical experiences working with public school pupils. The public school pupils were pre- and post-tested and the data analyzed in order to see if there were differences between the experimental and control groups. The data gathered from the testing of all phases of the research were analyzed and the results of the analyzation were presented in the presentation and analysis of data.

The analysis of the data has revealed that the preservice teachers in the modular program (previously defined as competency based teacher education) did not acquire knowledges significantly better than teachers in a conventional program. Modularly trained teachers acquired the AAHPER skills significantly better than teachers in a conventional program. The CBTE teachers performed significantly better in four of the seven skills. The CBTE teachers in elementary physical education exceeded the control group in six of nine teaching skills. Elementary pupils taught by teachers prepared in CBTE programs acquired knowledges and AAHPER skills significantly better than pupils taught by teachers who were conventionally trained. The same results were not obtained by CBTE trained teachers in either study in elementary social studies.

It has been pointed out in the methods and procedures of the study that the procedures differed in the two studies in social studies. In the social studies the college pupils were seniors and were entering that portion of the program usually referred to as 'student teaching." The senior students did not receive on-site instruction while they were engaged in student teaching. In the study in elementary physical education, the students were sophomores and juniors and they did receive on-site instruction when they entered the clinical experiences. It has also been pointed out that the group at Xavier University was so small that the results of the study were probably invalid.

Conclusions

With regard to the summary of the study and the summary of the analysis of the data, the following conclusions can be made:

1. Teachers prepared in a competency based teacher education program do not perform better on knowledges than do teachers in a conventional program.

2. Teachers prepared in a competency based teacher education program perform the AAHPER skills better than teachers in a conventional program.

3. Teachers prepared in a competency based teacher education program perform better on selected teaching skills than do teachers prepared in a conventional program.

4. Elementary pupils acquire knowledges about physical education under teachers prepared in a competency based teacher education program better than pupils taught by teachers prepared in a conventional program.

5. Elementary pupils acquire the AAHPER skills better under teachers prepared in a competency based teacher education program than do pupils taught by teachers prepared in a conventional program.

6. If teachers are prepared in a competency based teacher education program, it is important that these teachers be closely supervised in the clinical experiences by the clinical professor. The results of the competency based program are greater if the preservice teachers work with small numbers of students in closely supervised clinical experiences. It appears too late, at the student teaching level in a conventional program, to initiate competency based approaches.

Recommendations and Suggested Studies

On the basis of the conclusions just presented, the following recommendations are made:

1. Colleges and universities should move toward the installation of competency based teacher education in elementary physical education. The program should have clinical experiences that are supervised by clinical professors and should begin in the program as early as possible.

2. Further studies should be made in content areas utilizing similar research designs in order to ascertain if the same results can be obtained in other content areas than elementary physical education.

CHAPTER FIVE

THIRD-PARTY EVALUATION OF A 1972-73 PROJECT

OF THE SOUTHERN CONSORTIUM OF COLLEGES FOR TEACHER EDUCATION ENTITLED

DEVELOPMENT AND EFFECTIVENESS OF COMPETENCY-BASED TEACHER EDUCATION

IN EMERGING SCHOOLS

PREPARED BY:

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The Ohio State University
March 30, 1973

Goal III

Goal IV

Appendixes

I. Introduction

This is a third-party evaluation of a 1972-73 project of the
Southern Consortium of Colleges for Teacher Education entitled "Develop-
ment and Effectiveness of Competency-Based Teacher Education in Emerging
Institutions." The evaluation was undertaken for the Consortium at the
request of the Project Director, Dr. Howard Fortney, University of South
Alabama. The contract period was thirteen days. During that time the
investigator (1) became familiar with the project through a day's visit
with Drs. Fortney, Judge and Fisher of the Research Team (RT) in Mobile,
(2) returned and read miscellaneous papers provided by the RT (reports
of RT visits to Consortium member schools, parts of RT progress reports,
motivational materials for use in training sessions and so forth),
(3) developed and mailed a questionnaire intended to determine the ex-
tent to which each member institution was meeting project goals,
(4) set up and conducted three site visits--to Xavier, North Carolina
Central and Norfolk State, (5) returned to analyze the questionnaires
received and the information obtained during the site visits and (6) wrote
this report.

As in almost all cases of evaluation, not enough time was allocated
to the function. Consequently this report pretends to be neither
thorough nor complete, nor is it as analytic as it should be. Consider
it only a bird's-eye-view of the work of many ambitious and dedicated
Southern teacher educators, their colleagues and friends. It is unfor-
tunate that educational history probably will not have a comprehensive
record of what happened and why, with what results. That exploration is
well worth an analyst's efforts. Perhaps a student of teacher education
is waiting for just such an opportunity.

II. Background of the Project

A short history

This competency-based teacher education project has its genesis somewhere in former Defense Secretary McNamara's notion of project management and accountability which he brought from industry. Additionally there are roots to be found in the programmed instruction movement of the post-Sputnik late 1950's and early 1960's. Most people, however, will see its germination in the U.S. Office of Education's Comprehensive Elementary Teacher Education Models (CETEM) program which was born on October 16, 1967 when the National Center for Educational Research and Development (NCERD) issued a request for proposals to develop specifications for program models for the preparation of elementary teachers.[1] One of the eligibility requirements for participation of a college in the CETEM program was that it must graduate one hundred elementary teachers annually. This requirement eliminated smaller colleges such as most of those in the Consortium from the competition. Recognizing both the need for smaller institutions with limited resources to participate in change in teacher education and the need to see if the CETEM programs were at all relevant to such schools, during 1969-71 NCERD provided minimal support for ten southern colleges (the Consortium) to band together to accomplish these purposes.[2] Initial Consortium efforts then were focused on examining the CETEM efforts and designing competency-based teacher education (CBTE) programs on each of the campuses of member institutions.

Project funding

In January 1972, $96,000 was given to the Consortium among other things to develop, implement, and evaluate the CBTE designs which had been growing in the minds of Consortium members over the previous two years. Project management was given over to three former members of the Livingston State University faculty (Livingston had withdrawn from the Consortium) who became known as the Research Team or RT. The RT located at the University of South Alabama which became an Associate Member of the Consortium.

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[1] For an historical accounting of the CETEM program see Donald R. Cruickshank. Blueprints for Teacher Education: A Review of Phase II Proposals for the USOE Comprehensive Elementary Teacher Education (CETEM) Program. Washington, D.C.: U.S. Office of Education, October 1970, pages 1-3 and appendixes.

[2] For a more complete description of the Consortium's development and early activities of members see James Steffensen and Cheryl Inge, "Feasibility of the Elementary Teacher Education Models in Developing Institutions," Journal of Research and Development in Education, Vol. 3, Number 3 (Spring 1970), 107-119. For an understanding of the governance of the Consortium see By Laws: Consortium of Southern Colleges for Teacher Education. Durham, North Carolina: Consortium Central Office, June 29, 1972.

Competency-based teacher education (CBTE) defined

A few remarks are in order about CBTE since the major objective of the project is to develop and implement such programs at Consortium schools. The notion of teacher competencies arose within the context of the earlier mentioned CETEM program. In the "Information for Institutions Preparing Proposals for Phase II of the Bureau of Research Elementary Teacher Education Project" components of a model program are listed, the first of which is a "catalog of knowledge, skills, and competencies to be achieved by the trainee."

Since that time a kind of conventional wisdom about CBTE has developed and found expression in a work by Elam.[3] He notes that there is general agreement that teacher education is performance-based (performance-based and competency-based are now used interchangeably) if:

1. Competencies (knowledge, skills, behaviors) to be demonstrated by the student are derived from explicit conceptions of teacher roles, stated so as to make possible assessment of a student's behavior in relation to specific competencies, and made public in advance.

2. Criteria to be employed in assessing competencies are based upon, and in harmony with, specified competencies; explicit in stating expected levels of mastery under specified conditions; and made public in advance.

3. Assessment of the student's competency uses his performance as the primary source of evidence; takes into account evidence of the student's knowledge relevant to planning for, analyzing, interpreting, or evaluating situations or behaviors; and strives for objectivity.

4. The student's rate of progress through the program is determined by demonstrated competency rather than by time or course completion.

5. The instructional program is intended to facilitate the development and evaluation of the student's achievement of competencies specified.

Those working with performance-based programs believe they should have the following characteristics:

1. Instruction is individualized, personalized, and modularized.

2. The learning experience of the individual is guided by feedback.

3. The program as a whole is systemic.

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[3]Stanley Elam, A Resume of Performance-Based Teacher Education. Washington, D.C.: The American Association of Colleges for Teacher Education, 1972.

4. The emphasis is on exit, not on entrance, requirements.

5. The student is held accountable for performance, completing the program when, and only when, he demonstrates the competencies that have been identified as requisite for a particular professional role.

6. The program is field-centered.

7. There is a broad base for decision making (including such groups as college/university faculty, students, and public school personnel).

8. The protocol and training materials provided to students focus upon concepts, skills, knowledges (usually in units called modules) which can be learned in a specific instructional setting.

9. Both the teachers and the students are designers of the instructional system.

10. The program is open and regenerative; it has a research component.

11. Preparation for a professional role is viewed as continuing throughout the career of the professional.

12. Instruction moves from mastery of specific techniques to role integration.

III. Description of the Project

Project objectives

Based upon reading the proposal to USOE, following is a list of promises the Consortium seems to have made.

1. That each Consortium member would develop CBTE programs suitable for use in other small colleges and universities (probably so-called developing institutions). That each member's teacher education program would include an operating management system, a faculty development system geared toward CBTE implementation, and a community involvement mechanism.

2. That certain parts of the CBTE programs (specifically Learning Laboratories, Simulation Laboratories and Human Relations Laboratories) would be developed and tried out in regional demonstration centers to determine their effectiveness.

3. That the Consortium would establish a central office for teacher education program development wherein a repository and information dissemination service would be housed. This

Center would establish and maintain contacts with others
involved in CBTE and teacher education generally. (Specific
mention is made of AACTE, ERIC, National Laboratories and
R & D Centers, commercial publishers, the national protocol
and training materials project, state education agencies,
and training complexes.) In addition, the Center would
conduct conferences, assemble task forces, and publish a
newsletter.

4. That the Consortium Center would develop a consultative service
   to assist other small schools interested in CBTE.

5. That the feasibility of faculty and student exchanges which
   would strengthen teaching and learning in CBTE programs would
   be determined.

6. That Consortium CBTE trained students would be compared with
   traditionally trained students.

7. That the results of Consortium efforts will be widely dis-
   seminated by the Center.

These seven promises were subsumed under four major project goals as
follows: (Numbers in parentheses correspond with the promises. Note
some promises are related to more than one goal.)

    Goal 1 to design, develop, implement and evaluate CBTE programs
            at Consortium schools (1)

    Goal 2 to develop and demonstrate selected program components
            (Learning Lab, Human Relations Lab, Simulation Lab, and
            Portal Schools) for Consortium schools and selected
            others (2,4)

    Goal 3 to compare modular trained students with traditionally
            trained students (6)

    Goal 4 to design, develop, implement and evaluate improved
            Consortium organization and services (3,4,5,7)

Immediately one should be struck with the ambitiousness of the Consortium.
Each of the original CETEM participants received approximately twice the
total Consortium's project budget just to design programs and do
feasibility studies. Here Consortium members were promising to develop,
implement and evaluate CBTE programs in eighteen months on a "wing and
a prayer." Early in this project's history it was recommended to the
RT that the contract be re-negotiated in light of what the budget
could support. This was not done. The result is that generally speaking,
using Elam's criteria as the measure, the Consortium fell short of the
mark on several promises but far exceeded all reasonable expectations.

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Major activities and accomplishments in
relation to each of the four project goals

Two sources of information were used in determining what the proj-
ect accomplished. The first source was the Research Team (RT) located
in Mobile which was responsible to the Consortium for accomplishing the
project's goals. The second source was the individual participating
colleges. A third source not available to the investigator was the
Consortium's Board of Directors or its Executive Committee which would
have had to be especially convened.

Goal I. Major activities and accomplishments in relation to
designing, developing, implementing and evaluating CBTE programs at
Consortium schools. The investigator made a one-day visit to the RT in
Mobile in order to discuss the third-party evaluation. At that time
some information was collected related to each goal. Specifically to
facilitate the accomplishment of Goal I, it was found that the RT was
making visits to the eleven Consortium schools in order (1) to deter-
mine how involved each was in CBTE activities, (2) to establish with
each school a systems approach to follow in order to maximize efforts,[4]
and (3) to conduct faculty development conferences on a variety of
topics, e.g., developing and writing competencies and developing modules.
Between July 1972 and mid-January 1973, seventeen RT visits were made
with the intention of working toward the accomplishment of Goal I.
Appendix A is a report made after a typical Goal I site visit. Extensive
written documentation is available that the Goal I visits were well-
planned and executed. Special efforts were made to put personnel and
schools on tasks and deadlines and to increase the number of participat-
ing faculty.

Work toward Goal I by the RT probably was slowed when a technical
assistance grant was made to the Consortium to help other small colleges
outside the Consortium to work toward CBTE. From August 1972 until mid-
January 1973 it appears that 27 RT staff days were contributed toward
technical assistance exclusive of preparation and travel time involved.
This is at least the equivalent of a month's productivity for one staff
person and the technical assistance still is ongoing at the time of this
evaluation. A technical assistance grant, noteworthy as its objective
may be, should be supported by the addition of professional staff to the
RT. This does not seem to be the case.

Furthermore other staff days are being given to other noteworthy
but extra-curricular events such as organizing or participating in CBTE
conferences sponsored by professional associations and state education
departments.

All of these peripheral activities have to detract from work toward
the goal of developing, implementing and evaluating CBTE at Consortium
schools. On the other hand, RT participation in providing technical

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[4]Adopted from Donald R. Cruickshank, "Conceptualizing a Process for
Teacher Education Curriculum Development," Journal of Teacher Education,
Spring, 1971.

assistance must be reinforcing to Consortium members. It must make them feel that their efforts, to some extent, are being widely disseminated and recognized.

As mentioned earlier, a second source of information was the Consortium schools. An instrument (Appendix B) was sent to all eleven member schools to assess the progress each had made toward one or more of the four goals undertaken. In order to assess progress toward Goal I, respondents were asked (1) to list major activities undertaken to design, develop and implement CBTE (2) to list future activities (3) to describe major accomplishments (4) to describe the extent to which Goal I would be accomplished by the close of the project period on June 1, 1973, (5) to describe the extent to which it had developed management, faculty development, and community involvement subsystems, (6) to list names, positions and duties of key personnel, (7) to make recommendations to other schools (like their own) who are about to enter into CBTE. Following is a report and analysis of the information received in relationship to each of the seven queries listed above for Goal I.

An examination of the major activities reported by member schools to accomplish Goal I revealed substantial agreement on the process followed as they moved toward a CBTE program. The most frequently reported major activities were:

1. All schools began by selected faculty or administrators becoming more aware of the Comprehensive Elementary Teacher Education Model (CETEM) programs. This usually was accomplished either by reading the final reports, visiting or bringing in consultants from the sponsoring institutions, attending the AACTE Dissemination Conferences or combinations of the above. All schools began this way probably because they were mandated to study the CETEM programs according to their first federal contract.

2. A second order of events seemed to be those required to gain the support of the college administration and particularly the faculty. Even though schools had to make a commitment to CBTE in order to belong to the Consortium it seems clear that there was and is considerable unevenness to that pledge or at least to the ability to carry it out. In this regard members mention holding on-campus faculty workshops on the general nature of CBTE and attending similar meetings held elsewhere.

3. Closely related to the second type of activity was an effort to involve local education agencies in CBTE. In several instances CBTE proponents conducted meetings for both "insiders" and "outsiders." Teacher Corps and Triple T Projects were often "in-between" groups which seemed to have a strong impact throughout the development of CBTE, the former often furnishing personnel and financial support. Since some Washington Teacher Corps Staff (particularly Dr. James Steffensen) were associated with the CETEM program which

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advocated CBTE, this support is not surprising and has been welcomed by the Consortium.

4. Once understanding and broader support seemed to have been gotten, colleges became more task oriented. Several mentioned next that they considered CBTE in relation to the current program and identified overall goals for the new CBTE program. At this point decisions often were made, consciously or sub-consciously, to revise the current program and/or to develop a parallel one.

5. Further meetings were held of a faculty development nature in which the notions of competencies and modules were specifically discussed. (It was often in the context of these meetings that the RT seemed to have its greatest impact probably be-cause of the staff's expertise in writing behavioral objectives and its emphasis that modules be developed according to a particular format. See Appendix A, paragraph 3.2.)

6. Accompanying the above activities was often the need to decide how competencies should be derived. The RT suggested the following alternatives:

    a. Extrapolating competencies from present courses using course goals.

    b. Selecting competencies from prepared lists.

    c. Extrapolating competencies from concepts, skills, and attitudes teachers need to ensure pupil learning.

    d. Analyzing teacher behaviors and extrapolating competen-cies therefrom.

    e. Deriving competencies from research and other authorita-tive sources. (In most cases members used strategy a above probably because some relationships could be established between what professors currently were teaching and CBTE.)

7. Establishing individual or group assignments and deadlines or schedules of work followed, although most schools did not take scheduling too seriously preferring to go as fast as permissible.

8. Once into module writing, it became evident that access to available modules developed on other campuses was necessary so staff members began to identify and send for materials which were related to their tasks. Surprisingly few of the people interviewed during the site visits seemed to know of the libraries of modules being gathered at Consortium Central or at the RT.

9. An awareness also developed that more and/or better field settings (often referred to as Portal Schools) were required wherein CBTE students could learn and/or demonstrate skills. Simulation and microteaching labs also were established in most schools since both methodologies permit the acting-out of teaching behaviors for analysis.

10. Learning Centers were developed wherein curriculum materials were housed and teaching and learning could occur. Learning Centers seem to differ from fairly traditional instructional materials centers to combinations of teaching-learning-materials development operations. Those Centers visited were hardly adequate in terms of space, materials, services and availability although all had plans to become more functional.

11. Determining how competencies can be demonstrated and assessed seems to be an ongoing dilemma both in the Consortium and nationwide. At the 1973 AERA meeting several persons addressed the problem. Consortium members would do well to hear from those who reported and others on this count.

12. Field testing of modules took place in courses and revisions were made.

13. Modules were sent to the RT for evaluation and storage.

14. Efforts were made to prepare information about CBTE for other interested schools.

15. Several schools mentioned internal evaluation of the CBTE program but only a few seemed to work at the task in any special way.[5]

It would be an over-generalization to suggest that all the schools followed the aforementioned fifteen major activities or that they were followed in that exact order. Rather most followed most and most followed the order. The value of such an oversimplified analysis is that it can be a guide for others, CBTE-bent, to consider--not necessarily to follow.

When asked what remained to be done to accomplish Goal I before the project's end, not surprisingly some of the above fifteen items were rementioned for two reasons. First, not all schools are at the same place in CBTE although it is very safe to say that no one seems to be near program completion using Elam's criteria. Second, member schools must have felt that repetition of activities was necessary either

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[5]When the major activities for Goal III are presented the evaluation efforts of Tennessee State, FAMU, South Carolina State, Xavier and Pembroke will be discussed.

because of the advent of new faculty or to reinforce earlier CBTE commitments and skills. Most mentioned continuing activities are:

- consideration of the revision of the traditional teacher education program.

- attendant identification of competencies and writing of new modules.

- revision of existing modules.

- continued procurement of software and hardware to be used in modules.

- field testing of materials particularly minicourses which could be used.

- use of CBTE with more students.

- expanded use of field experiences.

- development and operationalization of support subsystems particularly management with emphasis on module delivery and record keeping.

- continued attendance at regional or national CBTE meetings.

- submission of new programs for state approval.

During the three site visits the most difficult continuing problem seems to be the development and operationalization of support subsystems particularly management with emphasis on module delivery and record keeping. Members simply do not have staff, facilities and sometimes know-how to make their CBTE programs functional.

When asked what major observable accomplishments have resulted from CBTE efforts the following were cited:

- courses have been rewritten with behavioral objectives.

- modules have been developed to accomplish the behavioral objectives.

- time limits have been removed from teaching and learning.

- new courses have been developed (mentioned often were early experiences--simulation, microteaching and human relations).

- more field experiences have been established.

- there is greater cooperation with the community and the local education agencies.

- teacher education program has been renewed.

- some faculty members have gained recognition both inside and outside the college as experts in CBTE.

- differentiated staffing has been established in the training program and in the schools.

- college has been able to gain entrance to or remain in the Teacher Corps.

All of these perceptions of accomplishment were not shared equally nor was it possible to determine whether, in fact, all the claims were truly accomplished. In some instances, for example "the removal of time limits on courses," some schools complained that students were not motivated to work on the modules independently, that they let the work pile up, and that often at the end of the quarter incompletes had to be given and/or faculty members were deluged by students making frenzied last minute efforts to "get work in on time," a denial of a principle of CBTE.

The fifth question asked about Goal I was "to what extent do you believe you will accomplish the (project's) objectives by June, 1973?" The schools which responded directly said:

- 100%

- All by June 1, 1973.

- We are trying to find out. We will make every effort to accomplish the goals.

- We expect to reach the objectives.

- By then we anticipate accomplishing the objectives.

- Of the three courses in the professional sequence all are in some measure competency-based now and we are making inroads into the student teaching program.

- fully accomplished by June 1.

- a prediction seems inappropriate.

Others reporting misunderstood the question. The question, by the way, seems to have been a very poor one since it did not give the respondent a referrent for CBTE. If, for example, we had used the Elam criteria it is highly doubtful that any school would have responded that its work would be completed. Since each school probably has its own more limited definition of CBTE the above responses are understandable and acceptable. Just formulating course objectives, behavioral or not, seems to be an imposing task for teacher educators. What Consortium members and other CBTE advocates seem to accept as CBTE programs is nearly any effort toward becoming more clear about what you're doing.

The sixth question asked respondents to describe the extent to which they had fulfilled the proposal promise to develop and utilize management, faculty development and community involvement subsystems to support CBTE. Again there is great variation among schools in the extent and nature of response to this as to other proposal promises. After visiting three schools and reading responses to the third-party evaluation questionnaires it seems safe to say that little manpower is available or given to designing, developing and implementing the subsystems in a formal way. In addition nothing was seen or mentioned that would suggest much help was provided the Consortium schools for such efforts. Except for early RT efforts stressing one conceptualization for developing a teacher education curriculum and mention of PERT and GANTT charts, models for the subsystems did not appear to be available and it could be that schools were not even sure what the subsystems should be like. The few member references to a management system included:

- "We are bringing in interns from a local university's School of Management to assist the Management Subsystem Committee,"

- "We are working toward a module delivery and record keeping system," and

- "We have used PERT with each development team."

More often respondents either did not answer the question or answered it in such a way that it was difficult to determine whether the concept of a management subsystem was within their grasp. In February the Consortium held a meeting wherein a consultant described management systems but members either do not seem to know about the explanation or found it too general and theoretical. What members seem to need is precise knowledge about how to get modules to appropriate students at the appropriate time and how to keep accounts of where students are in the program. Clearly two orders of the problems are present. The members do not seem to have enough help in conceptualization and/or they do not have manpower to allocate to the task.

Even less mention is made of faculty development and community involvement subsystems. The reasons are probably the same.

When asked to list names and positions of "key" persons in the CBTE program professional educational personnel predominate but a wide range of campus personnel are participating. Only one school indicated that among the "key" persons are local education agency personnel. Only one school cited state department persons. Research Team (RT) members were named as key personnel by some and not mentioned by others. The question was not well asked. Consequently little can be said in relation to the findings. Probably the term "key" personnel should have been defined. Surprisingly no one answered another part of the question which asked "what special efforts were made to improve the qualifications by key persons. . . ." Perhaps this should not be so surprising in that the whole idea of a faculty development subsystem seemed not understood, not well reported, or neglected.

The final question under Goal I asked respondents in retrospect
to make recommendations to other schools like their own who are about
to enter into CBTE. Here respondents answered most readily and two
schools of thought surfaced. One school advocates jumping right in,
"Begin, don't wait until everything is perfect and everyone is happy."
School two conservatively argues for slow, cautious movement. School
two advocates suggest that the following advice be heeded.

- Make certain that administrative approval and support is
  committed that will give authority and visibility to the
  CBTE effort.

- Involve everyone (faculty, students, administration, public
  schools, state department) early and provide for their continued
  involvement on a planned basis. Provide for interdisciplinary
  work.

- Use a systems approach and program evaluation review technique--
  be certain that all activities and events are scheduled and
  delivered.

- Be prepared to reallocate resources (money, people, and space)

- Be realistic in terms of available resources.

- Develop a faculty development system which among other things:

        acquaints all with CETEM program,
        supports faculty visits to CBTE schools,
        reviews literature on CBTE,
        brings consultant help in (CBTE, program planning and
            evaluation),
        reinforces or rewards faculty involvement.

- Either hire extra staff to free CBTE workers or reduce their
  present loads. CBTE staff must have time off.

- Do a pilot program first based upon revision of current
  courses.

Besides "jumping right in," the first school of thought would try to
get rid of or go around persons not supportive, develop a completely
new program rather than revise the current one and use CBTE materials
which were already made elsewhere rather than develop modules on campus.
The contrast between these schools of thought are obvious, interesting
and worthy of study to determine what precisely happens when you go
one route as opposed to the other.

    Goal II. Major activities and accomplishments in relation to
designing, developing, implementing and evaluating selected program
components (Learning Lab, Human Relations Lab, Simulation Lab and Portal
Schools) for Consortium schools and selected others. During Spring
1972, shortly after the project was funded, Consortium schools considered

the promise made in the proposal, "to develop functional demonstration units such as learning laboratories for individual instruction, simulation laboratories and human relations laboratories. . . ." A fourth demonstration unit, the Portal School, was added later. The following member schools volunteered to create demonstration units:

Learning Laboratory--Norfolk State
Simulation Laboratory--Florida A & M (FAMU)
Human Relations Laboratory--North Carolina Central
Portal Schools--Clark College

Two of the above schools, NCCU and Clark, indicated they had already begun to operate their demonstration units, while Florida A & M and Norfolk had no such headstart. In order to provide minimal support to get underway, the Consortium provided the latter schools $2500 each for development. In one case the money was expended; in the other state regulations governing spending interfered with the Consortium's intention. In addition to the four schools mentioned above which volunteered to develop demonstration units, two others noted on the third-party evaluation questionnaire that they were working toward Goal II. Tennessee State claimed work toward a human relations lab while South Carolina State cited soon-to-be developed human relations, simulation and learning labs.

The information about member involvement with each demonstration unit or lab was obtained from RT questionnaires, the third-party evaluation questionnaire and the site visits to Norfolk State and NCCU. Information obtained about each lab is presented below.

1. Learning Lab (sometimes referred to as a Learning Center). Norfolk State describes it as a place necessary to support CBTE activities, a place where students "may practice as often and as long as necessary to master teaching skills and behaviors." Seen in more of a multi-purpose way than the above description permits, the lab further is mentioned as a place where students would prepare instructional materials, where materials, equipment and supplies for the CBTE program would be housed and where simulation and microteaching occur. Norfolk State's document "A Proposal for Developing a Learning Center and so forth," is attached as Appendix C. Again after reading that document and other consortium plans one is struck with the ambitiousness of it all. There seems to be little doubt that the functions the lab is supposed to perform are necessary. What is unclear is how the lab was conceptualized and whether in the space and with the support it has it can begin to carry out all or even most of its mission. Probably Educational Facilities Laboratory personnel should have been involved with the Consortium and individual members as they worked toward designing and allocating space to program needs such as establishing physical facilities. At all the schools visited (Norfolk, NCCU and Xavier) there was concern for the adequacy and operation of what would be a complex and costly facility if it were to function according to specifications.

2. Simulation Laboratory. FAMU
    Simulation is not defined by its users in the Consortium
    (apparently everyone). However, after reviewing its applica-
    tion it could be said that the term is used to describe the
    use of any materials or equipment which permits the learner
    to produce teaching behavior in a contrived setting. Men-
    tioned most often by FAMU and others are the Teaching
    Problems Laboratory and Inner-City Simulation Laboratory
    which are intended to help students improve problem solving
    skills, increase their repertoire of responses to classroom
    problems, enhance student self-awareness and increase knowl-
    edge and use of applicable theory in classroom situations.
    In addition the term simulation often is used synonymously
    with use of films, microteaching (which supposedly is real
    teaching), mirror teaching (using TV for feedback), role-
    playing and case studies, the latter often derived from
    student teacher experience. Since there was no opportunity
    to visit the FAMU Simulation Laboratory the above limited
    information was gleaned from questionnaire responses. Al-
    though key persons working on the lab were mentioned again,
    as previously mentioned under Goal I, the respondent did
    not answer the question, "What special efforts were made to
    improve the qualifications of people to work toward the goal?"
    Such omissions could support the need for improving faculty
    development subsystems.

3. Human Relations Laboratory.
    North Carolina Central University (NCCU) is the demonstration
    site for this lab and has adopted the Weber State model which
    is based primarily on materials developed by Thiokol Inc.
    NCCU had an earlier, locally developed version of such a lab
    but evidently decided to discontinue it. According to NCCU
    personnel the Thiokol materials, not competency-based, are
    being used in conjunction with two courses and will be tried
    out more completely next year. In actual fact then there
    is as yet no place called a human relations laboratory. An
    unofficial entry into this domain is Tennessee State which
    responded on the third-party evaluation questionnaire that it
    was "somewhat" involved meaning by that that it would begin
    operation of a human relations lab near the time of this
    writing. In reality the Tennessee effort seems to be directed
    toward human relations training for the advisers of students
    including but not restricted to those in CBTE. Clearly because
    Tennessee State hopes to implement the Syracuse CETEM program
    it will have a human relations component which is described in
    a mimeograph, "A Competency-Based Teacher Education Program
    at Tennessee State University (Phase II)." It is not clear,
    however, from the questionnaire response or from other mate-
    rials received whether anything of the sort is in operation
    for students. Another paper, "Human Relations Component,"
    which seems to be a plan to be enacted is appended for
    reference. (See Appendix D.)

4. Portal Schools.
   Clark College took responsibility for this demonstration unit
   but for some reason did not respond to the third-party evalua-
   tion direction to "list as sequentially as possible all the
   major activities undertaken . . . to develop and demonstrate
   the selected component (Portal School)." Clark also did not
   seem to respond to earlier RT requests for similar information.
   Norfolk State indicated to the RT that it had Portal Schools
   which had been in existence for two years. It was not deter-
   mined whether or not these schools were associated with CBTE
   or Teacher Corps or both. Again, as with the other labs,
   a clear definition for the lab is not available. Judging
   from available data submitted to the investigator, the use of
   the term Portal School may not be the same as originally con-
   ceived in the Florida State University CETEM. Public agree-
   ment on the nature and functions of all four labs would make
   analysis easier.

Goal III. Major activities and accomplishments toward comparing
modular (or CBTE) trained students with traditional trained students.
Schools which indicated that they worked toward this goal were Tennessee
State, South Carolina State, Florida A & M, Pembroke and Xavier. The
latter two schools with the RT's assistance designed an experimental
study which was submitted to the investigator. The other schools'
intentions were gleaned from the third-party evaluation questionnaires.

First a few comments about the research proposal. It was suggested
by the investigator that this promise or goal be negotiated out of the
proposal. The reasons for this were two-fold. First, research of the
type to be performed almost always fails to produce differences between
and among the groups treated not because individual differences do not
occur within subjects, but because they are averaged out during data
analysis. The use of multivariate designs has been suggested. More
importantly this is an implementation study at best and not enough time
is available for that. To pull overburdened staff of member schools
and the RT away from implementation efforts and toward questionable
research is not maximizing the project's major contribution which seems
to be to demonstrate that CBTE can be carried out with minimal support
in developing colleges. Therefore it is not the intention of the in-
vestigator to examine rigorously the Research Prospectus and only a
few related comments are offered.

1. Since no related literature is cited the hypotheses arise full-
   blown and unsubstantiated. Certainly we could ask how these
   hypotheses were selected. What reason is there to believe
   that they have survived at least the rigorous test of logic
   if not of previous related research? Why should we believe
   and test the beliefs that CBTE trained students will be
   better performers of the so-called cognitive objectives or
   other? Will they be better at them because they are taught
   how and others are not? Is that a real test of anything?
   If we teach one group to play basketball and another not,
   how can we expect them to be equal in basketball playing?

2. Random selection of subjects should eliminate the need to match. Of course checks on randomization can be made.

3. What proven direct relationships (validity) have the instruments to the things (competencies) they are being used to measure? Is this a case of using devices which perhaps are not valid, perhaps unreliable? How will persons using the instruments be treated to gain inter-rater reliability?

4. How will experimenter treatment differences be controlled?

5. How will the "effects of history" be taken into account when selecting the student experimental groups? The things they are being equated on are not the main dependent variables.

6. How much confidence do you have in the use of student raters who seemed to be untrained?

7. How will differences in teacher verbal behavior be adjusted for differences in instructional topics or whether it is a presentation or review lesson?

Generally the prospectus has merit considering the time available to consider, design and execute such a study. It seems that after a cursory reading of the prospectus that the research is fraught with many of the usual problems described by Campbell and Stanley and further exacerbated or impaired by personnel and time restraints. The Consortium has outlined at least a $50,000 study to be done for practically nothing. Again, such ambition!

If the Consortium schools wish to do research it could be done to determine how competencies can best be assessed and which seem related to some sought-after measures, perhaps pupil gain, pupil or teacher satisfaction or other. The questions to be answered here are just as complex but much more germane and probably must be attended to before experimental designs are enacted in order to identify predictive variables and instrumentation.

South Carolina State is conducting a study to determine if CBTE has an effect on the behavior, attitudes and college reading skills of a group of freshmen. It is not clear what type of quasi-experimental design is being used or whether there is more than one form of the evaluation instrument. Apparently the data collected will be subjective and highly general in nature. It would be interesting to see how the subjective data offered by student subjects compared with objective data on reading gain scores.

Tennessee State has an Evaluation Committee for freshman CBTE and has compared attitudes of CBTE trained students with other freshmen. Reported results are that the two groups "resemble each other very closely," a not unexpected finding based upon what we know of attitude change.

FAMU reports that it will do a "complete evaluation of the first three quarters of work by students and faculty" and that a third-party evaluator, from the State Education Department, will participate.

In addition Norfolk has developed some forms for evaluating "education components" and CBTE "instructional materials" which should be shared.

Goal IV. Major activities and accomplishments in relation to designing, developing, implementing and evaluating improved Consortium services. Materials available to the investigator and interviews revealed that the Consortium does perform useful services for its membership. Obviously the largest improved service was brought about by the establishment of the RT whose activities have facilitated movement toward CBTE. Members remark consistently of the value of the RT in the areas of curriculum development, management assistance and research. Indeed the RT in conjunction with Consortium Central has been a strong force for change.

Combined efforts of these two groups, the former responsible to the latter, have included academic year sponsorship of a series of workshops on evaluation, assessment, and management as well as seminars on minicourses which are being field-tested by selected schools.

Furthermore the Consortium plans to improve communication by publishing the newsletter on a monthly basis but making members responsible for submitting items of note.

In September Consortium Central and the RT met to reconsider the organization and services of the Consortium. During that meeting it was concluded that among improvements needed are (1) an ability to respond more promptly to funding agencies, (2) establishment of guidelines for handling monies internally, and (3) increased representation at Consortium meetings.

In order to improve linkages between the consortium and agencies, a promise made in the USOE proposal, agencies were listed and a Consortium liaison person was selected for each purportedly to strengthen and clarify such relationships. Whether or not such a decentralized system will be efficient or manageable is debatable but capable of proof. The number of linkages noted number in the twenties and it would seem difficult if not impossible to maintain them well in either a centralized or decentralized fashion given the Consortium and member school resources.

When asked by the RT how the Consortium better can serve its members, responses included (1) provide more financial help, (2) provide more curriculum development assistance, (3) provide copies of modules, (4) make us aware of new educational products, (5) provide more faculty development assistance, (6) give more research assistance, (7) set up inter-campus visits, (8) provide more consultant help, (9) evaluate our efforts, (10) provide more travel assistance, (11) organize consortia within the Consortium, (12) support the RT which in turn supports

us, (13) improve public relations within Consortium communities--too
much emphasis on linkages important to Consortium Central, (14) estab-
lish needs assessment system.

Reading reports submitted to the RT, several recommendations can
be made. With the Bylaws in mind, efforts need to be made to determine
who is responsible for what. A functional, visible management system
should be set up for the Consortium which provides for as many needs as
possible given the Consortium's mission. Clearly with Consortium
Central consisting of a half-time director, an administrative assistant
(described as a record keeper and business manager), and a typist, very
little time is available to oversee the activities of the eleven col-
leges as they relate to Consortium goals.

Some rather pointed criticism was directed toward Consortium
Central by only one member school. Since there was no opportunity to
determine its accuracy of if accurate its generalizability, its occur-
rence is recorded here only as a matter for further inquiry in-house.

Generally schools seem enthusiastic about the Consortium, feeling
that it has definitely enhanced change in teacher education and given
member schools visibility and respect they might not have obtained
otherwise. Some felt that other Consortium-linked schools also shared
these benefits.

Program review efforts

Little investigator time was given to looking at how well the
Research Team (RT) monitored the program. Clearly RT staff visited
member schools in attempts to keep everyone moving and on target.
Similarly it asked for and usually received responses to inquiries re-
garding progress. However, no grand management plan exists which was
followed scrupulously. Rather it seems from time to time RT members
needed to find out how everything was going. At the outset, some atten-
tion seemed to be given to project management and evaluation (utilizing
the CIPP process in conjunction with a conceptual model for change in
teacher education) however there is no evidence available to the in-
vestigator that that early work was further developed and utilized
in any systematic way. Again, given the size of the RT, limitations
for overall program design, development, implementation and evaluation
are obvious yet hurtful to the Consortium's efforts.

Personnel

Many persons were mentioned as working toward Consortium goals.
Whether they were as qualified as possible to work on some goals is
suspect for two reasons. As mentioned earlier faculty development did
not seem to be a deliberate, ongoing, carefully formulated event. When
asked, "What special efforts were made to improve the qualifications of
persons to work toward the goal(s)?" responses were negligible but
most often missing. Probably among the best qualified persons are the
RT members (see Appendix E) who had previously worked on changing over
to a behavioral objectives program at Livingston State University and

Teacher Corps persons who had additional support and help from TAP persons. Certainly administrative staff were qualified to the extent they had administrative experience but perhaps they too needed continuing help. Lack of management systems of note may underline that need. One characteristic all personnel had in common was motivation. It is unlikely that any project has engaged so many persons in change in teacher education with such minimal support.

IV. Discussion and Summary

Did or will the project reach its goals? The answer to that question lies in the eyes of the beholder. Consortium members feel they will. Since no readily identifiable criteria exist, since the goals for the project themselves are not stated behaviorally, there is and will be plenty of room for conjecture. There will be agreement on one point--everyone tried. Visible efforts were made toward CBTE, toward establishing and operating demonstration units or labs, toward evaluating the training of CBTE students and toward improving Consortium operation and services. The foregoing bear testimony to these things.

The task of the third-party evaluator is to go out on a limb by himself, to take responsibility for reacting without regard to how the reaction will be received. Consequently, following is a response to the total project and to its separate strivings.

Unquestionably, USOE is getting its money's worth. Sponsorship of this effort is accomplishing the Office's dual goal of permitting small colleges with limited resources to participate in change in teacher education and to determine the value of the CETEM program to them. Ten of the eleven schools (one did not report in time to be included) are very much involved in change and are using the CETEM models as points of reference.

What is sorely needed for use by the members and others involved in change in teacher education is a conceptualization of a systematic process(es) of curriculum development which they can follow. Schools will not adopt in very large part what others have done. Rather they want to know how to do it themselves. (Teacher educators have long been highly idiosyncratic and probably will remain so in years to come.) This contention can be supported by looking at how the members used the CETEM programs. They looked at them, spoke with their developers, extracted a few ideas, went back home and basically built their own curriculum or revised current programs (most often the latter). Along with presenting exemplary models to choose among, USOE should engage serious scholars in developing conceptualizations of models for curriculum design, development, implementation and evaluation in teacher education. Being able to have and pursue a clear process and having access to some products certainly should enhance the natural bent of the teacher educator. Perhaps the Consortium should seek funding to provide historically accurate case study accounts of processes member schools employed. From such case studies theories and models can be formulated.

This project probably has proven that a small investment in so-called developing institutions will have a fairly large return. Such schools value these investments and make maximum use of them. The in-kind contributions were not calculated but in staff time alone they are enormous. Whether or not these schools will sufficiently affect what other schools will do is another question. If Henry Brickell's study of change in New York State is taken seriously then USOE would do well to support exemplary change in representative institutions, perhaps:

large - public
large - private
small - public
small - private

Other characteristics might be geography (north, east, south, west), and wealth. In this way schools interested in change could find an example like themselves. For this reason the Consortium might want to select one of its members as an exemplary site or perhaps, even better, bring in a new school to serve that role. Then funds should be sought to conceptualize a process for curriculum development and a program built thereon. At least in this way there would be a systematically developed exemplar for small-public or private colleges in the South who have limited wealth. Instead the Consortium has fostered a variety of changes in teacher education which do not seem to have developed from any explicit set of curriculum development rationales.

Goal I

Using Elam's criteria for CBTE it is unlikely that any school has a program demonstrating all those qualities. Purist CFTE advocates would fault many of the modules for not being up to "standard." However, real approximations of CBTE are developing and as the staffs of member schools grow in CBTE sophistication and skill surely the approximations will be better. The beauty of this project is that it is encouraging and enhancing what people want to do--improve a program--so that the project will end in June in name only; the work will continue.

Since the Consortium will continue after this project officially concludes it would be appropriate for it to develop a system-wide management by objectives program to ensure that objectives, activities, evaluation, resource allocation and so forth become more clear. Better administration will enhance everyone's work and lead to greater success. In that context individual schools should do the same so that macro and micro systems are in tune or consonant with each other. Additional staffing is key here. If staffing cannot be made available the whole Consortium notion and CBTE program development can become quite un-realistic. The obviously great ambition of individual teacher educators and administrators will atrophy sooner or later, probably sooner if help is not forthcoming. It is also possible that a new, well-intentioned but poorly debeloped CBTE program will be less valid than the traditional program being displaced. It is one thing to have a great notion, it is quite another to operationalize it.

Another potential problem of note is that schools probably are expecting new programs to be designed, developed, implemented and evaluated too soon. If we sat down seriously and tried to develop a PERT chart illustrating all the required activities in that process, the time line would realistically span a decade, not a year or two. Teacher educators should stop fooling themselves and others that changing the curriculum (in any meaningful, lasting way) is a sudden thing.

Goal II

It seems again that approximations of demonstration units or labs are shaping up. Some seem to be doing better than others but all need attention. Surprisingly little outside consultant help seems to have been provided for conceptualizing and/or developing the labs. Since there is some lack of clarity about each unit and what it should do, it will continue to be difficult to get them operating in an exemplary way. EFL people could help with the learning lab which seems to be better (but not completely) conceived. The other labs seem to need conceptual work, otherwise something will be shoved in to fill the gap. Since they are hardly operative, they cannot and have not been used in the "demonstration" sense.

Goal III

Earlier comments on the value and complexity of research for this project should be referred to. In summary, it is recommended that given the sparse resources of the RT and schools, the time and energy could be better spent. If research is to be a part of the Consortium's efforts it should be planned as a special function, staffed and properly supported. Research and researchable topics should be within the scope of the Consortium's interests rather than in the traditional mold which is quite likely to report the absence of significant differences.

Goal IV

Not being aware of the literature on consortia it is difficult to make any recommendations. It may be time for the Consortium to do just that--to read, find out about, visit consortia and see what makes them tick. In juxtaposition with that new knowledge, probably clear recommendations could be made which would enhance this organization. Even though members seem reasonably pleased, there may be ways to optimize the operation beyond those solicited by the RT and reported on earlier pages. First and foremost there is probably need for a full-time director who is an administrator-type with appropriate vision and training, someone who has contacts in Washington and with foundations favoring developing institutions. This person should be supported by the Consortium schools on a pro-rated basis. Monies brought into the Consortium should be for projects, not his support. He or she should have an adequate staff and travel budget and hold rank and tenure at one of the member schools of his choosing. He probably should be well-paid, at least $20,000 per year. This could cost each school only $3-5,000 a year. Without full-time leadership the Consortium will go

on and probably continue to grow and prosper albeit more slowly. The job will be done between other jobs. If the members want visibility and prosperity in teacher education beyond their campuses this is indeed a small price to pay for it.

Donald R. Cruickshank, Professor
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March 30, 1973

APPENDIX A

REPORT ON THE CONFERENCE ON COMPETENCY BASED EDUCATION
Prairie View A & M University - Prairie View, Texas
          July 27, 28, 1972
Dr. Howard M. Fortney

1. The faculty met and previewed a slide and tape presentation on
    competency based teacher education. There were approximately 20
    faculty members present who had been previously selected to repre-
    sent the "hard Core" of faculty that would begin the planning for
    the Prairie View Model for competency based education. The faculty
    was selected in such a manner as to have a representation of all
    departments of the University.

2. After viewing the tape and slide presentation, the faculty began
    brainstorming to develop those elements which they felt would be
    important in the Prairie View Model.

3. Dr. Fortney then presented those elements in competency based teacher
    education which would have to be placed in the program. These elements
    originated from the Performance Based Teaching Project of the American
    Association of Colleges for Teacher Education and from previous
    agreements of the Consortium of Southern Colleges for Teacher Educa-
    tion which is attempting to develop and implement competency based
    teacher education in thirteen schools in ten southern states. The
    parameters were established as follows:

    1. Competencies must be identified.
        1.1 Competencies must be written in terminology which would
             contain the audience (learner), the behavior to be elicited
             (in behavioral terminology), the conditions surrounding
             that behavior, and the degree to which the behavior must
             reach in order to ascertain that competency has been reached.

        1.2 There must be implicit in the competency a conception of the
             role of the teacher, i.e. is the teacher a facilitator,
             an interactor, a diagnostician or an innovator. It was
             suggested by the committee that Prairie View needed to think
             in terms of an "enabler of learning."

        1.3 The competencies must have pre-assessment and post assess-
             ment instruments designed.

        1.4 The competencies must be made public to the student.

    2. Modules must be written that lead to the attainment of the com-
        pietncies.
        2.1 The modules must contain the following elements.
             2.1.2 Title
                    Behavioral Objective. This objective must meet the

same criteria as the competency, i.e., the specification of the audience, the behavior to be enlisted, the conditions surrounding that behavior, and the degree of acceptance of the behavior which will be satisfactory.

2.1.3 Rationale for the Objective
2.1.4 Pre-assessment of the Behavior
2.1.5 Learning Experience
2.1.6 Post Assessment
2.1.7 Resources

(The reason this module format has been established in this manner is because the research project must assess modules for the 13 schools, and must also establish criteria for the transportability or the exportability of modules within the various schools.)

4. A modified Q Sort Technique was utilized to ascertain what other elements the faculty saw as elements related to the development and implementation of the program. The administration of the Q Sort revealed that the faculty grouped the related elements in competency based education in the following order:

1. Achievement Based, not time-based.

2. Personalized, individualized instruction.

3. Emphasis on exit, not entrance requirements.

4. The role of the teacher is viewed as an enabler of learning.

5. Both faculty and students are designers of instructional systems.

6. Systemic approach, regenerative, open system.

7. Utilization of the new technology.

8. Negotiation of instructional goals by faculty and students.

9. Multi-institutional pattern of instruction and organization.

10. Formative feedback to student regarding his progress.

11. Field-centered.

12. Training and protocol materials.

13. Internal research components.

14. Pre-service-inservice continuum.

Other items listed as important in the models were as follows:

1. Research by teachers
2. Flexible schedule
3. Conference with students
4. Time for individual conferences
5. Research by teacher
6. Flexibility
7. Differentiation of staff as team
8. Accountability
9. Standards and criteria made public
10. Evaluation and feedback to teacher
11. Human Relations
12. Communication
13. Small group objectives, individual objectives, total group objectives
14. Mutual trust
15. Writing specialist
16. Curriculum specialist
17. Modular bank
18. Differentiated staffing
19. Multi-media materials and equipment available and working
20. Explicit objectives
21. Measurable

5. Cruickshank's design for a model for changing curriculum at the university level was presented and explained:

| Need | → | Design | → | Development | → | Implementation | → | Evaluation |
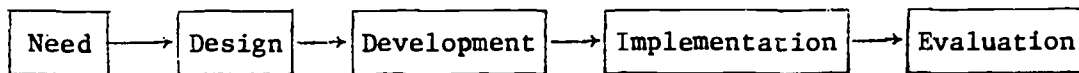
It was also explained that the technique for the research project would be the CIPP Process as outlined by Daniel Stufflebeam of Ohio University. Briefly this process is presented below and refers to a systemic method for monitoring research as it applies to each stage of the Cruickshank model.

| Context | → | Input | → | Process | → | Product |
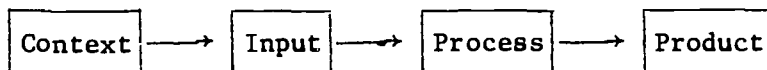
Utilizing this procedure, the faculty worked to define their needs and to design a procedure in line with the Cruickshank Model.

6. Faculty needs were defined as follows:

6.1 Writing behavioral objectives.
6.2 The identification of competencies.
6.3 Modular construction.
6.4 The conversion of secondary methods to competencies and modules, particularly student teaching and also assessment instruments.

6.5 The demonstration and training in the use of various commercial materials such as Cruickshank's Simulation, Dwight Allen's Technical Skills of Teaching, and Flanders and Amidon's Interaction Analysis Techniques.

6.6 Field centered - What does this mean in terms of competency based teacher education?

6.7 Multi-media materials - the problems inherent in this area in converting to competency based teacher education and the plans that Prairie View must make for the future if competency based becomes a reality.

6.8 Overview for competency based education for the total faculty. This should apply to the reasons and rationale as well as be a sales pitch for the entire faculty.

6.9 Texas Education Agency - What is this agency doing in terms of preparing the state for competency based and what is the master plan?

6.10 Sensitivity training - It was pointed out that the group dynamics approach would be better than participation in group activities.

7. In preparation for solving these faculty needs, it was determined that the faculty conference on August 28, 29 and 30 would address itself to the above needs. The conference activities and the consultants are provided below:

Conference Theme: Performance Based Curriculum:
                    The Prairie View Model

August 28, 1972

9:00   Dr. Harry Hendricks, Presiding
9:05   Dr. Alvin I. Thomas
10:00 Coffee
10:15 Overview for Competency Based Education
       Dr. Louise White, Director Teacher Corps
11:15 Texas Education Agency
       (Consultant to be selected by Dr. Hendricks and Dean Ragland)
12:00 Lunch
1:30   Dr. Marion Henry, Presiding
1:35   What Reorganization Will Have To Take Place in Competency Based
       Education.
2:30   Coffee Break
2:45   Panel for Questions
       Panel will consist of all consultants to the conference
       (Dr. Marion Henry, Panel Moderator)
4:00   Adjournment (Announcement of next day's activities)

August 29, 1972

9:00   General Convocation and Announcements
       Dean Ragland, Presiding

The remainder of the day will be spent in small group sessions which will address themselves to the following utilizing the consultants listed:

Group	Activities	Consultant
A.	Writing behavioral objectives	Dr. John Masla State University of New York, Buffalo 1300 Elmwood Avenue Buffalo, New York
B.	The identification and writing of competencies.	Dr. Erby Fischer Consortium of Southern Colleges, University of South Alabama, Mobile, Alabama
C.	The construction of modules	Mrs. Gwen Austin Program Specialist, Teacher Corps Washington, D. C.
D.	Secondary Methods - Competencies and Assessment Cruickshank's Simulation Allen's Technical Skills of Teaching Flanders & Amidon, Interaction Analysis	Dr. James Kenneth Orso Head, Secondary Education, Livingston University Livingston, Alabama
E.	The field centered curriculum in competency based education	Dr. Freda Judge Consortium of Southern Colleges, University of South Alabama, Mobile, Alabama
F.	Multi-media: materials and problems-competency based education	Mr. John Thompkins Media Specialist Department of Education Clark College Atlanta, Georgia
G.	Group Dynamics: The utilization of group processes in competency based education - the faculty and students	Dr. Wil Weber College of Education University of Houston Houston, Texas

The schedule for the activities of the 29th of August are presented below:

```
 9:05- 9:50   Groups ABCDEFG (Rooms will have to be assigned)
 9:50-10:30   Groups ABCDEFG
10:30         Coffee
10:45-11:00   Group meetings
12:00         Lunch
 1:15- 2:00   Group meetings
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2:00- 3:00    Group meetings
3:00          Coffee
3:14- 4:00    Group meetings

              August 30, 1972

9:00          General Convocation - Dean Ragland, Presiding
9:15          Small work session
12:00         Lunch
1:30          Continuation of work sessions
2:30          General Convocation
              Dr. Howard Fortney
                  Submission of a report of the progress of the small
                  group sessions.
                  Evaluation of the conference.
4:00          Adjournment
```

(Coffee is to be made available to all small group sessions all day.)

The small group sessions would meet as follows:

Group	Group Leader
1. Elementary Education	Charles Randall
2. Secondary Methods	Barbara Gray
3. Soil Science	Dr. James Kirkwood
4. Library Services	Dr. Harry Robinson
5. Mathematics	Frank Hawkins
6. Counselor Education	Wayman Webster
7. School Administration	Sam Urban
8. Industrial Arts	Walter Hall
9. Engineering	Sam Daruwaller
10. Nursing	Billie Bell
11. Business Administration	Rose Knotts
12. Economics	Dr. C. Tatum
13. Foods and Nutrition	Mrs. Ester Glover
14. Animal & Plant Science	Linsay Weatherspoon
15. Architecture	Israel Stein
16. Pre-Law	Jewel Hammond
17. Industrial Ed. Technology	Albert Hearn
18. Earth Science	R. E. Gibson
19. Voc. & Ind. Education	A. T. Kynard
20. Foreign Languages	To be announced.

These group leaders were to perform the following tasks:

1. To select and write 10 competencies in each field to be submitted as a written report at 4:00 P.M. on August 30.

2. To continue to serve in a leadership role in the writing of modules for the competencies after August 30. These modules are to be submitted to Dr. Harry Hendricks on the following

schedule:
Submit Modules - October 19, 1972
                 November 22, 1972
                 December 23, 1972
(This will necessitate group meetings during the Fall term.)

3. To work in conjunction with the overall committee at a meeting in the Fall to plan for the implementation of aspects of the competency based curriculum during the second semester.

8. The chairman of the overall committee for the development of competency based education at Prairie View was to be Dr. Harry Hendricks and the co-chairman was to be Dr. Marion Henry. As the chairmen of this group their duties were prescribed as follows:

8.1 To notify consultants and to prepare for the conference of August 28, 29, and 30.

8.2 To continue to meet with the overall committee for competency based education to inform the committee of the development toward competency based education.

8.3 To collect competencies and modules at the specified dates and to forward these competencies and modules to:
Dr. Howard Fortney
Consortium of Southern Colleges for Teacher Education
College of Education
University of South Alabama, Mobile, Alabama 36608

8.4 To serve as a screening agency for the development of competencies in conjunction with the Dean of the College, Dr. G. R. Ragland.

8.5 To generally oversee the development of competency based education at Prairie View A & M University.

8.6 To plan for a conference in the Fall for the purpose of planning the design of the Prairie View Model and the implementation of aspects of that model during the second semester of this coming school term.

Third-Party Evaluation Questionnaire
Consortium of Southern Colleges for Teacher Education

I. One objective of the Consortium's 1972-73 program is "to design,
    develop, implement and evaluate competency-based teacher education
    at Consortium schools."

    A. Was this objective accepted and worked toward at
        your college? Circle one.

                 Yes   No

    B. If no was circled, elaborate below or on attached paper
        why the goal was not accepted or worked toward. If yes
        was circled go to C below.

    C. If yes was answered to A above list as sequentially as
        possible and describe all the major activities under-
        taken at your school "to design, develop, implement, and
        evaluate CBTE" since this program began.

    D. In addition, list future activities to be completed before
        June 1, 1973 which will lead toward the objective.

    E. What major observable accomplishments have resulted from
        your efforts? For example, what new programs have been
        designed, developed and implemented? What new materials
        have been designed, developed and used? What new services
        are offered? (Attach copies of any descriptive material)

    F. To what extent do you believe you will fully accomplish
        the objective by June 1, 1973?

G. The USOE proposal indicates that each college would develop and utilize a management system, a faculty development system and a community involvement mechanism. To what extent did you develop and utilize each system to support your CBTE program?

H. List names and positions of key persons who worked toward this objective. What were their duties and qualifications? What special efforts were made to improve the qualifications of persons to work toward the goal.

I. What recommendations would you make to other schools like your own who are about to design, develop, implement and evaluate CBTE? Be as specific as possible.

II. A Second objective of the Consortium's 1972-73 program is "to develop and demonstrate selected* CBTE program components for Consortium schools and others."

A. Was this objective accepted and worked toward at your college? Circle one.

           Yes   No

B. If no was circled, elaborate below or on attached paper why the goal was not accepted or worked toward. If yes was circled go to C below.

C. If yes was circled in A above list as sequentially as possible all the major activities undertaken at your school "to develop and demonstrate one or more of the selected components* for Consortium Schools or others."

_____

*Mentioned in the proposal to USOE were (1) Learning Lab (2) Human Relations Lab, (3) Simulation Lab.

D. In addition, list future activities to be completed before June 1, 1973 which will lead toward the objective.

E. If your selected component is completed or nearly completed describe it and its use here or attached descriptive information.

F. To what extent do you believe you will fully accomplish the objective by June 1, 1973?

G. List names and positions of key persons who worked toward this objective. What were their duties and qualifications? What special efforts were made to improve the qualifications of people to work toward this goal?

III. A third objective of the Consortium's 1972-73 program is "to compare modular (or CBTE) trained students with traditionally trained students."

A. Was this objective accepted and worked toward at your college? Circle one.

    Yes   No

B. If no was circled, elaborate below or on attached paper why the goal was not accepted or worked toward. If yes was circled go to C below.

C. If yes was answered to A above list as sequentially as possible all the major activities undertaken at your school "to compare (CBTE) trained students with traditionally trained students."

D. In addition, list future activities to be completed
    before June 1, 1973 which will lead toward the objective.

E. If the study was designed and undertaken at your college
    attach a copy of the design of the study and the results
    if available.

F. To what extent do you believe you will fully accomplish
    the objective by June 1, 1973?

G. List names and positions of key persons working toward
    this objective. What were their duties and qualifications?
    What special efforts were made to improve the qualifica-
    tions of persons to work on the goal?

IV. A fourth objective of the Consortium's 1972-73 program is "to
    design, develop, implement and evaluate improved Consortium
    organization and services."

    A. Was the objective accepted and worked toward at your
        college? Circle one.

                Yes   No

    B. If no was circled, elaborate below or on attached paper
        why the goal was not accepted or worked toward. If yes
        was circled go to C below.

    C. If yes was answered to A above list as sequentially as
        possible all the major activities undertaken at your
        school "to design, develop, implement, improved Consortium
        organization and services."

D. In addition, list future activities to be completed before June 1, 1973 which will lead toward the objectives.

E. What observable accomplishments have resulted from your efforts? For example, how have the Consortium organization and services been improved?

F. To what extent do you believe your college in cooperation with the Consortium will accomplish the objective by June 1, 1973?

G. List names and positions of key persons who worked toward this objective. What were their duties and qualifications? What specific efforts were made to improve the qualifications of persons to work toward the goal?

H. Specifically the Consortium proposal to USOE promised that it would establish a central office for teacher education program development. In the central office or Center a repository and information dissemination service would be begun and housed. This Center would establish and maintain contacts with others involved in CBTE and teacher education generally. In addition the Center would (1) conduct conferences, (2) assemble task forces, (3) develop a consultative service, (4) publish a newsletter and (5) determine the feasibility of faculty and student exchanges which would strengthen teaching and learning in the CBTE program. How well does your college feel that the Center at the University of South Alabama has fulfilled each and every promise?

APPENDIX C

A PROPOSAL FOR DEVELOPING A LEARNING CENTER TO SUPPORT THE
IMPLEMENTATION OF COMPETENCY-BASED, CODULAR TEACHER
TRAINING PROGRAM AS A DEMONSTRATION FACILITY FOR
TEACHER CORPS PROJECTS, AND OTHER SMALL
DEVELOPING INSTITUTIONS

SUBMITTED BY

DR. M. S. HAFIZ, AND DR. ELAINE WITTY

FOR

ELEMENTARY EDUCATION DEPARTMENT,

NORFOLK STATE COLLEGE

NORFOLK, VA. 23504

SUB-CONTRACTED FROM

CONSORTIUM OF SOUTHERN COLLEGES FOR TEACHER EDUCATION, CENTRAL OFFICE
NORTH CAROLINA CENTRAL UNIVERSITY, DURHAM, NORTH CAROLINA

BEGINNING DATE

SEPTEMBER 1, 1972

PURPOSE AND RATIONALE:

For an effective development and implementation of a competency-based
teacher education program to take place, it is imperative that necessary
supportive facilities be provided. Among other such facilities, the
need for a LEARNING CENTER has been keenly felt by both teacher training
staff and by prospective teachers. Inasmuch as the program focuses on
the attainment of mastery rather than variable levels of achievement of
teacher competencies, it becomes essential for teacher trainees to have
continued and ready access to a specifically created and equipped facil-
ity--a facility where they may practice as often and as long as necessary
to master teaching skills and behaviors.

Since increasingly greater numbers of teacher training institutions,
with or without Teacher Corps Projects, are beginning to develop and
implement competency-based teacher education programs, the development
and operation of a demonstration unit in the form of a supportive
facility would serve the following objectives:

1. To support the on-going competency-based learning experiences
   for teacher trainees as they work toward practicing and master-
   ing a variety of teaching competencies: (a) developing concepts
   and understandings, (b) translating these concepts into teaching
   skills and behaviors, (c) preparing multi-media packages and
   instructional materials, etc.

2. To provide teacher trainees with a laboratory setting in which
   they may work on a variety of learning tasks as a part of
   mastering teacher competencies that have been specified in
   performance terms.

3. To provide a facility for teacher trainees with the readily
   available materials, equipment, and supplies which they can
   utilize in learning to prepare and operate as a part of their
   designing and carrying out instructional strategies as a means
   to demonstrate the attainment of competencies, in micro and/or
   simulated situations.

4. To serve as a center where teacher trainees may work on individ-
   ual learning objectives and projects, and to greatly increase
   the possibilities of self-paced learning; the LC will also en-
   hance the opportunities for small-group, team and pair learning,
   evaluation and feedback among teacher trainees.

5. To serve as a repository for a variety of instructional aids
   and materials; teaching guides and manuals, instructional
   modules, school texts, charts and other teacher-made materials,
   filmstrips, and films as well as custom-made video tapes to be
   used by trainees on a continued basis until they are ready to
   meet post-assessment performance criteria for teacher competen-
   cies they are expected to master.

6. To serve as a laboratory for teacher training faculties where
   they may have access to the physical facilities to be used to

meet a variety of needs: (a) previewing tapes, films, film-
strips, video-tapes, etc., (b) preparing own instructional
materials to support instructional modules, (c) assessing
(diagnosing, and providing remediation) of competencies of
teacher trainees, (d) demonstrating teaching strategies and
skills, and the like.

AREA FOR WHICH THE PROPOSED LC WILL SERVE AS A SUPPORTIVE FACILITY

The proposed LC will support the competency-based training activities
for the following areas of study: Educational Psychology, Educational
Foundation and Community Relations, Methods courses including Introduc-
tion to Profession, Human Relations Work, and Micro and Simulated
Teaching Practice, and others.

The proposed LC is intended to augment the college-wide facilities--
Vast TV studios, Extensive Audio Labs, Reading Lab.--to meet the in-
creased demand for additional specific equipment and materials for use
in practical experiences of a variety of types which teacher trainees
will engage in more than ever before.

FLOOR PLAN:

The floor plan for the proposed LC consists of the following:

Enter	Shelves for materials, supplies, equipment	Film/Video Tapes Viewing Area
workbench	work-bench work-bench	
Listening stations, carrells for		Micro Teaching Labs and Simulated

study, previewing
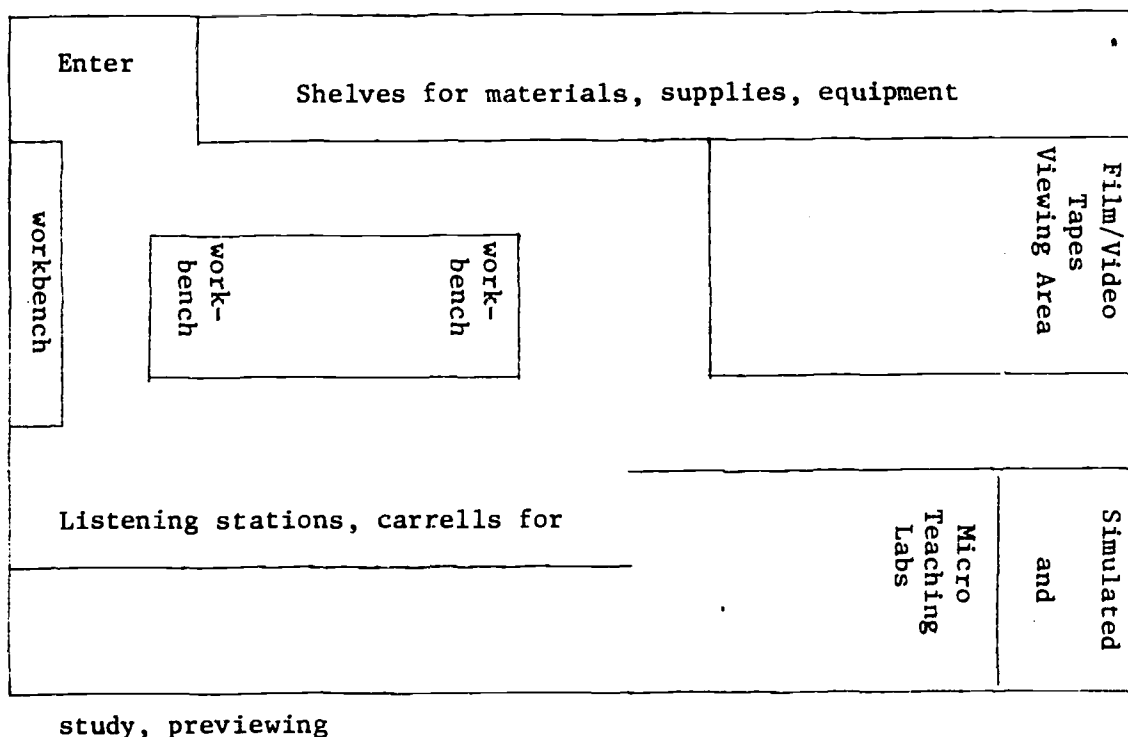
<u>BUDGET</u>:

This college has already purchased four units of portable video-tape equipment which are being used both at college and portal schools. However, specific items of additional equipment and materials will be necessary to make the LC fully operational. The following is a detail of the proposed expenditure:

1. Clerical Worker $1000.00

2. Equipment (tape recorders, listening
   stations, projectors, cameras, material
   production equipment, etc.) $4000.00

3. Materials and Supplies $1000.00

4. Carrells, renovations of existing
   furniture and facilities $1000.00
                                                         $7000.00
                            Indirect cost   .   8%

                            Total $7560.00

Submitted by:

M. S. Hafiz

Elaine P. Witty

APPENDIX D

HUMAN RELATIONS COMPONENT
Tennessee State University

Rationale

As stated in the Progress Report of June 30, 1971, p. 3, it is
our belief that before a prospective teacher can derive maximum benefits
from a Competency Based Teacher Education Program he should engage in
a personal search for meaning and self-integration. Such experiences
should begin with the initial phase of the program and continue through-
out the pre-service phase.

Therefore, our program is designed to accommodate the personal and
professional needs of each participant through the activities of our
human relations laboratory. It is the aim of the program to extend,
eventually, the services of this facility to (1) the advisors in the
program, and (2) other university personnel.

Design

The Human Relations Laboratory design includes three domains--
(1) the Self-Encounter Domain, (2) the Self-Realization Domain, and
(3) the Self-Actualization Domain--with competencies organized in
hierarchical order for the student's achievement. It is projected
that a typical student will develop competencies in the Self-Encounter
Domain during his freshman year; and proceed to develop competencies
in the Self-Realization Domain during his sophomore year. The junior
and senior years will find the student continuing the development of
competencies in the Self-Realization Domain and proceeding to competen-
cies in the last domain--Self-Actualization.

General Objectives of the 4 Year Program

The Human Relations Laboratory in relation to the CBTE program at
Tennessee State University will provide affective and cognitive expe-
riences that hopefully will produce a teacher, who,

A. Because of developed competencies in the Self-Encounter
    Domain, has (and demonstrates) an enhanced concept of self.

B. Because of developed competencies in the Self-Encounter
    Domain, has (and demonstrates) an acceptance of himself as
    a committed one to the teaching profession.

C. Because of developed competencies in the Self-Realization
    Domain, demonstrates successful engagements in interpersonal
    transaction.

D. Because of developed competencies in the Self-Realization
    Domain, exhibits depth communications in "non-verbal"
    humanities.

E. Because of developed competencies in the Self-Actualization
    Domain, demonstrates an understanding and valuing of his
    "non-person" world.

F. Because of developed competencies in the Self-Actualization
    Domain, has meaningful and successful interactions in his
    "non-person" world.

Objectives - 1st Year

In order to provide the kinds of experiences necessary for the
development of C.B.T.E., students extensive profiles will be compiled
including demographic information, individual and/or group intelligence
tests, interest inventories, attitude scales and other questionnaires,
academic achievement, preservice evaluation.

Under the Self-Encounter Domain, the students will begin to develop
competencies in the three suggested hierarchies: (1) Self-identity,
(2) Understanding Self, and (3) Valuing Self.

The future staff of the human relations laboratory will develop
instructional aids, performance criteria, and instructional alterna-
tives for each of the three hierarchies in the Self-Encounter Domain.

An example of the suggested competencies for the Self-identity hier-
archy is included. Strong emphasis is placed on instructional aids that
are presently available for Tennessee State University's C.B.T.E. students.

Objectives - 2nd Year

It is hoped that the Human Relations Laboratory will have a physical
setting with necessary equipment and staff. This should set the stage
for the further development of the hierarchies in the Self-Encounter
Domain.

Work should begin on the development of the suggested hierarchies
in the Self-Realization Domain, namely--Relaxation, Specificity of Ex-
pression or Concreteness, Empathy, Attending Behavior, Respect, and
Decision-Making.

Initial work may begin on the development of suggested hierarchies
of the Self-Actualization Domain, namely, Time-Space Factor, and non-
person artifacts, Custom & Communications. Additional hierarchies may
be added to each of the three domains.

HIERARCHY – SELF-IDENTITY

Domain I

Instructional Aids	Performance Criteria	Instructional Alternatives
1. Strength Testing Technique: Thompson & Hoppens.	1. The teacher trainee will achieve self-identity to the satisfaction of the Director & trainee council.	1. Student will write an autobiography of himself in which he emphasizes his strengths, feelings and attitudes toward different racial or ethnic groups.
2. Winter, Gerald D. Nuss, Eugene M. The Young Adult-Identity and Awareness.	2. The teacher trainee will focus upon the forces within himself as they interact with the dynamics of his social environment. The trainee will describe and interpret these forces through verbal and written reports to the trainee council.	2. Student may participate in an interaction exercise that focuses on "Individual Behavior Styles" in small groups. (NTL Lab-Series)
3. The HDI Kit developed by the NTL. A ten session series.	3. The teacher trainee will share his thoughts about self (who am I) with one other, and then with a small group.	3. Student may participate in a small group setting and then move to a one-to-one relationship. A ten-tape encounter series may be used.

JOB DESCRIPTIONS

NCERD
Project Director

Dr. Howard M. Fortney

Located at University of South Alabama

1. Responsible for overall project direction
2. Handles all Technical Assistance Project for Teacher Corps (Winston-Salem, Appalachian State, Western Carolina, Alabama A & M)
3. Visitations, program development and implementation assistance at Pembroke State University, Prairie View College, Jarvis Christian College
4. Development of videotape needed on Goal IV
5. Selects and makes arrangements for Project Consultants, including travel and honorarium
6. Responsible for total team scheduling on non-consortium school program development work on CBTE
7. Handles all correspondence on research project.

NCERD
Program Specialist

Dr. Freda C. Judge

Located at University of South Alabama

1. Visitation, program development and implemention assistance at South Carolina State College, Tennessee State University, Florida A & M University, Xavier University of Louisiana
2. Responsible for cataloging of modules received
3. Responsible for development of CBTE bibliography on bi-monthly basis
4. Responsible for rough draft writing of all project material
5. Trade-off time to Minicourse Project: helped develop prepilot tape used for "debugging purposes"
6. Responsible for ordering and cataloging materials on CBTE for resource bank (protocol materials, catalogues, etc.)

Minicourse
Project Director

Dr. Erby Fischer

Located at University of South Alabama

1. Responsible for overall minicourse project direction
2. Responsible for development of pilot materials (selection, critiquing, posting, analysis)
3. Trade-off time to NCERD involved site visitation to Consortium schools involved

with the minicourse project and obtaining
NCERD base line data (Norfolk, Clark,
NCCU, Shaw)
4. Handling budgetary matters for both proj-
ects on transferred funds
5. Responsible for statistical analysis

NCERD   Located at University of South Alabama
   Secretary
                         1. Responsible for office management, dicta-
Mrs. J. McLendon   tion, typing, and filing
Mrs. H. Weite   2. Handles all travel booking for research
                            team

Background Experiences Found Useful in Working as
Director of the NCERD project
Howard Fortney

1. Experiences in developing and implementing a CBTE program at Living-
   ston University while serving as the Dean, College of Education,
   specifically this involved:

   1.1 Attending conferences conducted by the Consortium of Southern
       Colleges, Teacher Corps and other groups relative to the
       development of CBTE.
   1.2 Conducting faculty development programs in CBTE at Livingston
       University.
   1.3 Working cooperatively with division heads and faculty in con-
       ceptualizing, designing, developing and implementing CBTE from
       the theoretical base.
   1.4 Reorganizing the college to effectively administer the CBTE
       program at Livingston University.

2. Conducting faculty development programs in CBTE for various groups.
   Specifically, these included:

   2.1 The New England Association of Teacher Education.
   2.2 Various Teacher Corps Projects in Alabama and North Carolina.
   2.3 The Alabama Association of Colleges for Teacher Education,
       comprising the deans of all colleges in the state preparing
       teachers.
   2.4 Serving as a consultant to Teacher Corps Conference in Washing-
       ton, Atlanta, Houston.
   2.5 Serving as a consultant to various colleges in Alabama that
       are preparing for development and implementation of CBTE.
   2.6 Serving as a consultant to the New England Program in Teacher
       Education at the University of New Hampshire.

3. Serving as the institutional representative for Livingston Univer-
   sity for the Consortium of Southern Colleges for Teacher Education--

teacher education project funded for three years by the National
Center for Educational Research and Development. Specifically
this included:

3.1 Attending conferences from 1968 to 1972 with the original
    model builders.
3.2 Attending Consortium conferences and workshops from 1968 to 1972.
3.3 Serving on the Board of Directors of the Consortium.
3.4 Composing the final report of the Livingston University Model
    Program in Competency Based Teacher Education.

Dr. Freda C. Judge - NCERD Project as Program Specialist

1. Experiences in developing and implementing CBTE program at Livings-
   ton University, specifically:

   1.1 Writing behavioral objectives
   1.2 Writing IPIM's (Individually Prescribed Instructional Modules)
   1.3 Serving as Clinical Professor in public school two days a week
   1.4 Handling logistics of CBTE program in assigned areas (or courses)
       such as scheduling seminars, developing, administering, scoring
       and posting pre and post assessments of students
   1.5 Working with Computer Center on tracking of students
   1.6 Writing federal and state projects involving program development
       1.6.1 Teacher Corps Cycle VI
       1.6.2 Bureau of Education for Handicapped Program Develop-
              ment Project
       1.6.3 Alabama Department of Mental Health Project Training
              of Spec. Ed. Teachers for Rural Areas
   1.7 Conducting in-service program in Spec. Ed. for LEA's
   1.8 Consultant work in State Dept. of Education
   1.9 Psychometric testing
   1.10 Budget control on Spec. Ed. project
   1.11 President, Alabama Spec. Ed. Advisory Council
   1.12 Alternate member, Governor's Commission on Child & Youth

2. Experiences gained while a USOE graduate fellow, P.L. (85-926 as
   Amended/Mental Retardation), in Dept. of Special Education, Univer-
   sity of Alabama included:

   2.1 Teaching undergraduate conventional courses in Spec. Ed.
   2.2 Handling departmental correspondence
   2.3 Learning about evaluative procedures of teaching personnel
       in higher education
   2.4 Responsibility for conference planning and implementation
   2.5 Speaking at meetings, conferences, etc.
   2.6 Psychometric testing

3. Experiences gained while working as educational consultant -
   L.S.U.N.O. Special Education Center, New Orleans

   3.1 Diagnostic and evaluation work with public school pupils in
       New Orleans area gave experience in overall evaluative

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procedures with school aged children, both formal and informal as well as in needed prescriptive and/or remediation work

3.2 Work with individual classroom teachers on adapting/modifying (individualizing) work in classroom
3.3 Conducting in-service workshops on individualizing instruction
3.4 Consultant work to State Dept. of Education and LEA
3.5 Teaching graduate and undergraduate conventional courses
3.6 Working with peers in a team situation

4. Experiences gained while working for United Cerebral Palsy, Baton Rouge, Louisiana

4.1 Evaluation of preschool and primary level children
4.2 Working with parents and community leaders
4.3 Work with in-service teachers on curriculum modification

Background Experiences Relative to
Competency Based Teacher Education
Erby C. Fischer

1. Associate Dean, College of Education, Livingston University

1.1 Personnel
    1.1.1 General administrative duties with respect to personnel
    1.1.2 Load assignments
    1.1.3 Load analysis
    1.1.4 In-service training in CBTE
    1.1.5 Supervision and coordination
1.2 Program
    1.2.1 Program generation
        1.2.1.1 writing behavioral objectives
        1.2.1.2 writing modules
        1.2.1.3 clinical professor
        1.2.1.4 writing proposals for CBTE funding
        1.2.1.5 state committee to establish CBTE certification
                and 5th year of internship
    1.2.2 Program management
        1.2.2.1 student teaching
        1.2.2.2 faculty tracking
        1.2.2.3 program evaluation
        1.2.2.4 fiscal management
        1.2.2.5 coordination
        1.2.2.6 logistics
1.3 Student Personnel
    1.3.1 Teaching
    1.3.2 Evaluation
    1.3.3 Advising
    1.3.4 Seminars
1.4 Facilities
    1.4.1 Logistics
    1.4.2 Research on use
    1.4.3 Cost assessment

1.5 Materials and Equipment
    1.5.1 Coordination of acquisition
    1.5.2 Coordination of storage
    1.5.3 Systems design for flow control
    1.5.4 Developing software (tapes, transparencies, etc.)

2. Program Development Specialist - Teacher Corps, Cycle VI

    2.1 Program Generation
    2.2 Program Management
    2.3 Program Assessment
    2.4 Student Assessment
    2.5 Coordinator for field testing mini-courses from Far West Lab

3. Program Evaluator - Teacher Corps, Cycle III

    3.1 Program assessment
    3.2 Student Assessment
    3.3 Instruction

4. Director of Institutional Research, Livingston University

    4.1 Cost Analysis
    4.2 Facilities Studies
    4.3 Faculty Load Analysis
    4.4 Student Personnel Studies
    4.5 Entrance Requirements Studies

5. Institutional Representative to South Alabama Research Consortium

    5.1 Student Studies
    5.2 Faculty Studies
    5.3 Program Studies
    5.4 Facility Studies
    5.5 Inter-institutional studies
    5.6 Intra-institutional studies

6. Chairman Division of Research and Services

    6.1 General Administrative Duties

7. Instructor in research, statistics, math education, science education, educational psychology, educational foundations, and educational evaluation.

APPFNDIX A

CONSORTIUM OF SOUTHERN COLLEGES
FOR TEACHER EDUCATION
BY-LAWS

We, the undersigned, for the purpose of forming a Consortium,
composed of small developing colleges and universities in the southern
U.S., committed to the development of competency-based teacher educa-
tion programs, do hereby, as a body, adopt the following:

Article I

Name

The name of this body shall be: The Consortium of Southern
Colleges for Teacher Education.

Article II

Purpose

The purpose of this Consortium shall be to promote the improvement
of teacher education with emphasis upon competency-based teacher educa-
tion.

Article III

Pecuniary Gain

This Consortium shall not afford pecuniary gain to individual mem-
bers through Consortium grants received except that such gain shall be
incidental to the Consortium goals and purposes.

Article IV

Duration

The period of duration of the Consortium existence shall be
indefinite.

Article V

Location

The location of a central office of this Consortium shall be established by the Executive Committee with the approval of two-thirds of the active membership.

Article VI

Membership

Section 1. Types of Membership

Membership in this consortium shall be: active, associate or honorary.

A. Active membership in this Consortium, with full benefits and voting privileges, shall be restricted to one representative from each of the members. Membership implies a commitment to cooperative efforts with other Consortium member schools to promote the improvement of teacher education through the development of models.

The procedure for application for active membership shall be as follows:

(1) Submission of a letter of commitment to competency-based teacher education by the appropriate administrator of the school requesting active membership.

(2) Submission of a statement that the applicant meets the criterion for the definition of a developing institution as stipulated by the United States Office of Education.

B. Associate membership is open to small southern colleges and universities interested in promoting and improving teacher education through competency-based teacher education programs from the president of the institution, or from an academic administrative officer directly responsible for the teacher education program, shall be part of the application procedure.

Associate membership applications will be acted upon by the Board of Directors. Associate members are entitled to copies of publications, new notes and representative attendance at all meetings except business sessions but those persons cannot vote nor hold office in the Consortium. Associate members may participate in research or other activities of the Consortium and are entitled to Consortium consultant services for program development insofar as resources permit. The associate member may send representatives to workshops and competency-based programs sponsored by the Consortium but must finance their own attendance.

C. Honorary membership may be conferred upon any person or agency by a two-thirds vote of the members of the Board of Directors. The name(s) of these persons and/or agencies shall be submitted by members of the Board of Directors of the Consortium. Honorary membership does not carry with it the right to vote.

Section 2. Duties of Member Schools

Each member of the Consortium shall:

A. Have the responsibility for promoting and implementing competency-based teacher education.

B. Assume major responsibility for the orientation of faculty members, local schools, supervising students, teachers and other school personnel, and the public about its competency-based program and the work of the Consortium.

C. Participate in the pursuit of funds for promoting Consortium activities.

D. Provide consultative services, within their areas of expertise, to developing institutions.

E. Send representation to all consortium meetings.

Section 3. Termination of Membership

Active or associate members desiring to terminate membership shall do so in writing by the end of a fiscal year. Termination of membership in the consortium shall be requested by the Executive Committee when evidence indicates that the school is not committed to competency-based teacher education.

Section 4. Voting

Each active member is entitled to one vote on all the affairs of the Consortium.

Article VII

Officers

Section 1. Officers

The officers of the Consortium shall consist of a Chairman of the Board of Directors and a Director of the Consortium. Each officer shall be elected by a two-thirds ballot by the Board of Directors. The Director of the Consortium shall serve under the direction of the Chairman of the Board.

A. **Chairman.** The Chairman is empowered to transact the general business of the Consortium, authorize the Director of the Consortium to incur expenditures within the budget of the proposal, authorize travel and other expenses for the Consortium, authorize consultant services, and authorize the Director to make contacts for the Consortium subject to approval of the Board.

The Chairman will attend to all business of the Consortium that occurs between meetings, have the accounts of the Consortium audited prior to annual business meetings, present the annual report on each grant relative to major proceedings and financial affairs at annual business meetings, plan and conduct meetings of Executive Committee, write proposals after soliciting ideas from members, preside at meetings of the Executive Committee, and represent the Consortium.

B. **Director of the Consortium.** The Director will serve as secretary-treasurer of the Consortium and Board of Directors. He shall certify as recognized active members those schools which meet the requirement for membership. He shall be responsible for communications with funding agencies and Consortium members, for public relations, for coordination of plans and agenda for meetings, and for reports of expenditure of funds allotted to members. He shall be located within a reasonable distance of the central office.

Section 2. **Qualification**

Any representative from an active member institution of the Consortium is eligible to be elected an officer provided the institution has been a member of the Consortium for at least two years. Should any officer be unable, through sickness, death or any other reason, to fulfill his responsibilities, the Board of Directors shall have the power to appoint a replacement.

Article VIII

Board of Directors

Section 1. **Membership**

The Board of Directors shall consist of one representative from each of the active member schools. They shall be appointed by their respective administrators to serve on the Board. Each board member is entitled to one vote.

Section 2. **Quorum**

The number required to be present to constitute a quorum in the Board of Directors is two-thirds of the total number. The Board of Directors shall be empowered to:

(a) transact all business of the Consortium, fill vacancies in office, act upon applications for associate membership, and recommend persons for honorary membership.

(b) authorize the Chairman of the Consortium to make contracts for the Consortium.

(c) appoint representatives and delegates to attend conferences or meetings.

(d) conduct workshops and conferences.

Section 3. Duties

The duties of the Board of Directors shall be to:

(a) check accounts of the Consortium prior to annual business meetings.

(b) evaluate new ideas for Conso:tium funding.

(c) appoint and dissolve committees.

Article IX

Executive Committee

Section 1. Membership

(a) The Executive Committee shall consist of four elected members of the Board plus the Chairman. The Director of the Consortium is an ex-officio member of the Executive Committee.

(b) Tenure: Members of the Executive Committee shall be elected for a term of four years with a member being replaced each year. No school may have two members serving on the Committee at the same time.

Section 2. Duties

The duties of the Executive Committee shall be:

(a) to make final decisions pertaining to Consortium policy after the Board of Directors has heard the policy proposals

(b) to evaluate proposals for funding, presented to the Consortium by member institutions, on the following criteria:

    (1) availability of funds

    (2) project is in accordance with guidelines of Consortium proposal

(3) benefit to entire Consortium rather than building up individual school

(4) directed toward improvement of competency-based teacher education

(c) to request audited accounts of Consortium schools funded by the Committee for viewing by Consortium members.

Article X

Meetings

Section 1. Annual Business Meeting

The Annual meeting of the entire Consortium shall be held during the month of June at a time and place selected by the Board of Directors.

Section 2. Regular Meetings

Other business meetings of the Consortium may be called by the Chairman or by a voting majority of the Board of Directors. The announcement of each meeting, including the time, place and the agenda of such meetings, will be prepared by the Director of the Consortium and mailed to the members at least ten days in advance of the meeting. Meetings of the Board of Directors or Executive Committee shall be at the call of the Chairman or the Director of the Consortium. Each member of the Executive Committee has the power to request a meeting.

Article XI

General Provisions

Section 1. Initiating Projects

All Consortium projects shall be cleared through the Board of Directors before presentation to the Executive Committee for discussion or ultimate approval. Active members requesting funds from the Consortium must present a concept paper and proposed budget to the Board of Directors. Approval for pursuing the project must be given by the Board and the completed project proposal will be submitted to the Executive Committee for final approval and funding. The same institution may not be funded twice for the same project nor consecutively for amount exceeding $5,000. Reports of progress from schools so funded must be made to Board of Directors at least every three months.

Section 2. Reimbursement

Requests for reimbursement will be honored only if the expenditure of funds was with the approval of the Chairman. The required form, with

its specifications observed, must be submitted to Consortium Central within one week after travel is completed. Reimbursement is permitted when:

(1) a meeting of the Board is called

(2) a meeting of the Executive Committee is called

(3) an appointment as Consultant is made by the Consortium

Article XII

Amendments

Amendments to these bylaws may be presented by any member representative at any regular board meeting. Such recommended amendments will be acted upon at the first regular meeting subsequent to their presentation and a two-thirds vote of the Board shall be required for the adoption of such amendments.

APPENDIX B

EXEMPLARY SITE PROGRAMS BY SCHOOLS

1. Management Systems - Xavier University, North Carolina Central University

2. Faculty Development - all member schools

3. Community Involvement - Norfolk State, Tennessee State, Prairie View, Pembroke, Shaw University

4. Component Assessment

   4.1 Learning Lab - Norfolk State, Florida A & M University, Jarvis Christian
   4.2 Simulation Lab - Florida A & M University, Norfolk State
   4.3 Human Relations Lab - Xavier University, Tennessee State, North Carolina Central
   4.4 Portal Schools
       4.4.1 In-service Education - Norfolk State, Clark College, Xavier University
       4.4.2 Pre-service - Norfolk State, Clark College, Xavier University
       4.4.3 Pupil Achievement - Norfolk State, Clark College, Xavier University
       4.4.4 Instructional Stra egies - Florida A & M University, North Carolina Central University
           a. Educational Technology - South Carolina State, Florida A & M University
           b. DX and RX Techniques - South Carolina State, Florida A & M University
   4.5 Assessment of Modules - All member schools
   4.6 Clinical Experiences - Clark College, Xavier University, Florida A & M University, North Carolina Central University, Jarvis Christian, Prairie View, Pembroke, Tennessee State University
   4.7 Systems Analysis - North Carolina Central University, Xavier University
   4.8 Programs Generation - All member schools

5. Consortium's Structure and Functioning - All member schools

6. Evaluating Inter-institutional Consultative Services - All member schools

7. Evaluating Faculty Development and Training Sessions - All member schools

8. Evaluating Demonstration Sites - Norfolk State, Pembroke, Florida A & M University, Jarvis Christian

9. Student and/or Faculty Exchange - All member schools

10. Inter-institutional/intra-institutional Comparisons - Tennessee State, Jarvis Christian

11. *Survey of Resources at Each Institution* - All member schools.

APPENDIX C

MODOFIED Q SORT FOR A DEFINITION OF COMPETENCY BASED
TEACHER EDUCATION

1. Essential Elements (Presented by Overlay)

2. Related elements are presented below. Please rank the items from 1
   to 15 as you see them, either important to, or related to, priorities.

_____A. Emphasis on exit, not entrance requirements.

_____B. The role of the teacher is viewed as an enabler of learning.

_____C. Training and protocol materials.

_____D. Systemic approach; regenerative, open system.

_____E. Achievement-based, not time-based.

_____F. Utilization of the new technology.

_____G. Both faculty and students are designers of instructional system.

_____H. Personalized, individualized instruction.

_____I. Internal research component.

_____J. Student accountability.

_____K. Formative feedback to student regarding his progress.

_____L. Negotiation of instructional goals by faculty and students.

_____M. Field-centered.

_____N. Multi-institutional pattern of instruction. Organization.

_____O. Pre-service-inservice continuum.

      (Please list others as they may occur to you)

_____P.

_____Q.

_____R.

_____S.

_____   _____
      (Name of College)   (Your name)

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RESEARCH INFORMATIONAL OPINIONAIRES

SCHOOL _____ PERSON COMPLETING FORM _____

DATE:_____

1. In your opinion, what is the organization of the Consortium?

2. In your opinion, what function has the Consortium performed for your institution?

3. In your opinion, what direct services has your institution received from the Consortium?

4. What direct services would your institution like to receive from the Consortium?

5. In your opinion, what have the indirect services from the Consortium been to your institution?

6. What indirect services would you like to receive from the Consortium?

7. How might present direct and indirect services of the Consortium be improved?

8. In your opinion how have Consortium projects-proposals been generated?

9. How should Consortium project-proposals be generated?

10. What are some additional comments related to development/improvement/ evaluation of the Consortium organization and function that you would like to make?

SELECTED COMPONENT: PORTAL SCHOOLS

COMPONENT BEING DEVELOPED BY:

1.1   What is your definition of portal schools? (include function)

1.2   How does the portal school relate to your CBTE program?

1.3   Give demographic information on each portal school you use. Use
       separate sheet if needed.

1.4   What is the administrative structure of the portal school? How
       does the teacher education program fit into that structure?

1.5   What are the sources of community involvement? How were they
       developed? Who is involved? How often is there involvement?

2.1   What are the physical facilities of the portal schools? (Use
       separate sheet if needed.)

       What is the location of each portal school?

       What is the program structure of each portal school?

       How long has each school been used as a portal school?

2.2   Who participated in the design of the portal school?

2.3   How has the public school faculty been prepared for the concept
       of portal schools?

2.4   How has the university faculty been prepared for the concept of
       using a portal school?

2.5   Have key team leaders been identified? How were they identified?
       Who identified them?

2.6   What is the financial structure of the portal school? What are
       the sources of funding for the portal schools?

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2.7 How were the portal schools selected? Who selected them? Why were these schools selected?

2.8 Have you had consultants in the preplanning/development/implementation stages of the portal school component? If so, who, when, why and for how long?

3.1 How is the preservice teacher education portion of the portal school administered?

   Is there a process for input at all levels?

3.2 Is there a systems design for utilization and control?

3.3 Why are the portal schools suitable for use as a demonstration site?

3.4 Have projections been made relative to faculty development, program generation, space needs, etc.?

3.5 What are procedures for cost control? Who manages it?

3.6 What are the plans for continuous funding of the portal school component?

3.7 What are the plans for institutional change resulting from using the portal school component (both university and public schools)?

4.1 Who has visited your portal schools from the Consortium? When? For how long?

4.2 Who has visited your portal schools from non-consortium schools? When? For how long?

4.3 Do you know of any other institution who has adopted/adapted parts of your portal school component? If so, who? What parts? How have they adapted it?

4.4 Have members of your portal schools staff been used as consultants? If so, who? How? Where? When? For how long?

SELECTED COMPONENT: SIMULATION LAB

SCHOOLS DEVELOPING THIS COMPONENT:

1.1 What is your definition of "A Simulation Lab"? (What do you include in it?)

1.2 How does the simulation lab relate to your CBTE program?

2.1 What type of facilities are utilized for the simulation lab?

2.2 What are the components of your simulation lab?

2.3 What materials or equipment do you use in conjunction with the simulation lab?

2.4 How long has the simulation lab been in operation?

2.5 How is the faculty involved in the simulation lab? Who? When?

2.6 How are components of the simulation lab financed?

2.7 Who recommends or makes acquisitions for the simulation lab? When and how?

2.8 Have you had consultants in the preplanning/development and/or implementation stages of the simulation lab? If so, who, when, why and for how long?

3.1 How is the simulation lab administered? By whom?

3.2 What is the systems design for utilization and control of the lab?

3.3 What do you see as the unique role of the simulation lab as a demonstration site?

3.4 What projections have been made in terms of changes, expansions, deletions, space needs, equipment, materials, costs, etc.?

3.5 What is the procedure for cost control of the simulation lab?

4.1 Who has visited the simulation lab from consortium schools? When? How long?

4.2 Who has visited the simulation lab from non-consortium schools? From where? When? For how long?

4.3 Do you know if any other institution has adopted/adapted parts of your simulation lab? If so, who? What parts? How has it been adapted?

4.4 Have members of your simulation lab staff been used as consultants? If so, who? How? Where? When? For how long?

SELECTED COMPONENT: LEARNING CENTER

SCHOOLS DEVELOPING THIS COMPONENT:

1. Define your learning center: (include services provided)

1.1 How does the learning center relate to your CBTE program?

2. What are the physical facilities of your learning lab? (special room, converted classroom special room, etc.)

2.1 Where are the components of the learning lab? (in one place, around campus, etc.)

2.2 What are the contents of the learning lab? (attach inventory if possible)

2.3 How long has each component of the learning lab been in operation? (give component and date put into operation)

2.4 What members of the faculty are involved with the learning lab? To what extent? Why are they involved?

2.5 How are the lab components financed? (annually, bi-annually, state, federal, etc.)

2.6 In relation to acquisitions, who makes recommendations for additions? When? How? Why? From where?

2.7 Have you had consultants in the pre-planning/development/ implementation stages of the learning lab? If so, who, when, why and for how long?

3.1 How is the learning center administered? By whom?

3.2 Is there a system design for utilization and control of the lab? If so, explain.

3.3 What do you see as the unique role of the learning lab as a demonstration site?

3.4 What projections have been made in terms of the learning lab personnel, hard/software, space needs, services, etc.? For how long a period does the project cover?

3.5 What is the procedure for cost control of the learning lab?

4.1 Who has visited the learning lab from Consortium schools? When? How long?

4.2 Do you know if any other institution has adopted/adapted parts of your learning lab: If so, who? What parts? How have they adapted it?

4.3 Have members of your learning lab staff been used as consultants? If so, who? How? Where? When? For how long?

SELECTED COMPONENT: HUMAN RELATIONS LAB

COMPONENT BEING DEVELOPED BY:

1.1   How do you define human relations lab?

1.2   What is included in it?

1.3   How does the human relations lab relate to CBTE?

2.1   What is contained in the human relations lab?

2.2   What facilities does it utilize, if any?

2.3   Are there components with the human relations lab?   If so, what
      are they?

2.4   What materials or equipment are involved with the human relations
      lab?

2.5   How long has the lab been in operation?   (or components of it?)

2.6   What is the faculty/staff involvement in the human relations lab?
      (include who, how, when, why?)

2.7   How are components of the human relations lab financed?

2.8   Who recommends or makes acquisitions for the lab?   (when and how
      are they made?)

2.9   Have you had consultants in the pre-planning/ development/implemen-
      tation stages?   (If so, who, when, why and for how long?)

3.1   How is the human relations lab administered?   (by whom or what
      dept.?)

3.2   How is the human relations lab staffed?

3.3 Is there a systems design for utilization and control? If so, explain.

3.4 What is the unique role for the human relations lab use as a demonstration site?

3.5 Have there been any projections made in terms of changes, expansions, deletions of the program, needs (including space, equipment and materials), cost, etc.? If so, by whom? To whom?

3.6 What is the procedure for cost control?

3.7 Is there a plan for continuous funding? If so, what and by whom?

4.1 Who has visited your human relations lab? (who, when, from where, for how long?)

4.2 Have other institutions adopted/adapted parts of your human relations lab? If so, who and what parts? How has it been adapted?

4.3 Have members of your human relations staff been used as consultants? (If so, who, how, when, and for how long?)

APPENDIX E

MODULE EVALUATION FORM

Institution_____   Evaluation_____

   I.   MODULE TITLE: _____

  II. Behavioral Objective: Self-administered   ___
       Is the audience specified?   ___   (individual)
       Is the behavior explicit?   ___   Role provided by process
       Are the conditions speci-   Facilitator   ___
          fied?   ___   Interactor   ___
       Is the degree of acceptance   Diagnostician   ___
          specified?   ___   Innovator   ___

 III. Relationship: VI. Post-assessment:
       Is the relationship of this   Is the post assessment
          module and program objec-   consistent with the
          tives clear?   ___   behavior objective?   ___
                                                Is the procedure diag-
  IV. Pre-assessment: nostic?   ___
       Is the pre-assessment con-   What is level of assess-
          sistent with the be-   ment?   ___
          havioral objective?   ___   Knowledge   ___
       Is the procedure diagnos-   Skill   ___
          tic?   ___   Performance   ___
       What is the level of   Actual   ___
          assessment?   ___   Simulated   ___
          Knowledge   ___
          Skill   ___ VII. Resources:
          Performance   ___   Are resources specified? ___
             Actual   ___   Are there multi-sensory
             Simulated   ___   resources provided?   ___
                                                Any unique resources?   ___
   V. Instructional Activities: If so, specify _____
       Are there provisions for
          learning alternatives?   ___   _____
       Instructional format: _____
          Micro-teaching   ___   _____
          Simulated teaching   ___   _____
          Large group instruction ___
          Small group instruction ___
          Reading/Reporting   ___
          Observation/reporting   ___
          Individualized   ___
          Programmed   ___
       Administration:
          Coordinator   ___
          Instructor   ___
          Self-administered   ___
             (group)

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MODULES FOR THE TEACHING AND INTERACTIVE SKILLS
CONSORTIUM OF SOUTHERN COLLEGES

I.   Title: Teaching & Interactive Skills: Competency

II. Behavioral Objective:
     Given five students in a real or simulated classroom, the
pre-service teacher will utilize the Teaching and Interactive
Skills in teaching three ten-minute microteaching lessons on the
university campus. The Teaching and Interactive Skills may be
grouped in any fashion the student may find suitable, but all
fourteen of the skills must have been demonstrated at the stated
criterion level.
     Given "x" pupils in "x" grade in a real classroom, the pre-
service teacher will utilize the Teaching and Interactive Skills
in the teaching of elementary social studies. The teacher will
construct a test of thirty-three true-false questions with a ten
minute time limit for administration. This test must be suitable
for the grade level and be approved by the college instructor.
This test will be given to pupils at the beginning of the teaching
session and will serve as a pre-test to measure the pupils' knowl-
edges. After thirty days of instruction, the teacher will adminis-
ter the same test to the pupils to measure pupil progress or
pupil knowledges post test. The mean score of these "x" pupils
on the knowledge post test will be at least one-half standard
deviation above the mean score of these same "x" pupils on the
pupil knowledge pre-test.
     The measurement of the interactive skills and the pupil
process will be measured by two audio taped lessons of ten minutes
each. One lesson is to be taped at the beginning of the teaching
session with real pupils at the same time that the pupils' knowl-
edges pre-test is administered. The second taping session is to
be completed after thirty days of instruction, or at the same time
that the pupils' knowledges post test is administered. The tapes
will be analyzed by a professional evaluator to ascertain if the
competency level is reached in the Teaching and Interactive Skills
at the stated criterion levels. In addition, the analysis of the
tape should reveal more pupil participation than teacher partici-
pation when scored on a time line.

III. Purpose:
     Each individual has his own natural way of relating to others.
This way influences some people in some settings. If the pre-
service teacher studies his own natural way and develops it to
increase his teaching skills, to have a style that others react
to more readily, then he will influence a wider variety of people
in a wider variety of settings. Practicing the activities in
this unit opens the possibility that a person will become a more
skillful teacher. Practicing these skills until they become a
customary way of responding makes it highly likely that the
teachers' performance will be superior.

IV. Preassessment - none

V. Learning Alternatives:

1. Modules
   a. Teaching & Interactive Skills: Use of Examples
   b. Teaching & Interactive Skills: Awareness Skills
   c. Teaching & Interactive Skills: Divergent Questions
   d. Teaching & Interactive Skills: Higher Order Questions
   e. Teaching & Interactive Skills: Probing Questions
   f. Teaching & Interactive Skills: Silence
   g. Teaching & Interactive Skills: Variety in Presentation
   h. Teaching & Interactive Skills: Prompting
   i. Teaching & Interactive Skills: Repetition
   j. Teaching & Interactive Skills: Presentation
   k. Teaching & Interactive Skills: Reinforcement
   l. Teaching & Interactive Skills: Establishing Readiness
   m. Teaching & Interactive Skills: Summarization
   n. Teaching & Interactive Skills: Acceptance of Ideas and
                                      Feelings.
   o. Consult module listing posted in Departmental Curriculum
      Library for additional support modules available

2. Class presentation
      See schedules of class times and locations posted in
   Departmental Curriculum Library

VI. Resources:

1. Modules
   a. Teaching & Interactive Skills: Use of Examples
   b. Teaching & Interactive Skills: Awareness Skills
   c. Teaching & Interactive Skills: Divergent Questions
   d. Teaching & Interactive Skills: Higher Order Questions
   e. Teaching & Interactive Skills: Probing Questions
   f. Teaching & Interactive Skills: Silence
   g. Teaching & Interactive Skills: Variety in Presentation
   h. Teaching & Interactive Skills: Prompting
   i. Teaching & Interactive Skills: Repetition
   j. Teaching & Interactive Skills: Presentation
   k. Teaching & Interactive Skills: Reinforcement
   l. Teaching & Interactive Skills: Establishing Readiness
   m. Teaching & Interactive Skills: Summarization
   n. Teaching & Interactive Skills: Acceptance of Ideas and
                                      Feelings
   o. Consult module listing posted in Departmental Curriculum
      Library for additional support modules available

2. Faculty and Staff
   a. class lecture notes
   b. assigned class readings
   c. other class assignments (visitations, films, etc.)

VII. Postassessment:

Pre-service Teacher Criterion Level Check Out Sheet
Pupil Knowledge Post Test
Analyzation of audio-tapes to measure pupil process

I. Title - Teaching & Interactive Skills: Establishing Readiness

II. Behavioral Objectives:

Given a group of at least 5 students (peers or public school
pupils), in three different simulated or real classroom micro-
teaching situations, the preservice teacher will prepare three
different lessons that will demonstrate, in each teaching situation,
a different way of establishing readiness. This readiness must
be established within the first 5 minutes of the lesson and will
motivate 3 of the 5 students as evidenced by their attention to
the group. (verbal and/or nonverbal participation, etc.)

III. Purpose:

In order for the teacher to state the lesson objective and
motivate the pupils, there must be included at an early stage of
a lesson presentation a short introduction which sets the stage
for the total lesson.

IV. Preassessment:

Same as behavioral objective.

V. Learning alternatives:

1. View videotape segments - Clip I and Clip II of Teaching and
   Interactive Skills: on file in department videotape library.
2. Attend scheduled seminar conducted by faculty.
3. Schedule visit to public school classroom to observe and
   identify ways used by teachers to establish readiness.
4. Schedule practice sessions - alone with media available (audio/
   videotape, etc.), with small group of peers or school aged
   children.
5. Read selected available material on file in Departmental
   Curriculum Library.
6. Free Choice.
7. Read, Allen, D. W., Creating Student Involvement, pp. 5-13.

VI. Postassessment - See competency instrument:

VII. Resources:

1. Videotapes - Clip I and II of Teaching and Interactive Skills.

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2. Allen, Dwight W., A New Design for Teacher Education.
    Journal of Teacher Education 17:296-300 1966.
3. See master reading list posted in Departmental Curriculum
    Library for current related readings.
4. Allen, Dwight W., Teaching Skills: Creating Student Involve-
    ment, pp. 5-13.

I.   Title: Teaching and Interactive Skills: Presentation

II. Behavioral Objective:

    The preservice teacher, in a simulated or actual classroom
situation with a group of at least five peers or public school
pupils, will make a ten minute presentation on a selected topic.
The presentation will provide information to the students and
will be rated according to the attached form by a group of three
peers and one faculty member. During the presentation the teacher
will elicit at least one response from each of four pupils.
The presentation must be conversational, contemporary, concrete
and involve creativity.

III. Purpose:

    Teacher talk in presenting material should facilitate the
learning of students. The presentation is one effective method
of teacher talk in a classroom to convey information, review or
reinforce previous work, synthesize different sources, inform
students of expectations, change the pace of a classroom or
convey enthusiasm.

IV. Preassessment:

    The preservice teacher, in a simulated or actual classroom
situation with a group of at least five peers or public school
pupils, will present a ten minute presentation on a selected
topic. The presentation will present information to the students
and will be rated according to the Presentation Rating Scale
by a group of three peers and one faculty member. Each rating
scale must have at least ten "yes" responses scored.

V.   Learning Alternatives:

1. View videotape "Teaching & Interactive Skills" - clip II on
    file in Departmental Videotape library.
2. Attend scheduled seminar on Presentation.
3. Schedule visit to classroom (either University or high school
    class) and observe a teacher giving a presentation and relate
    to the rating scale.
4. Schedule practice presentations with a small group of peers.

5. Read selected available material on presentation on file in Departmental Curriculum.
6. Free choice.
7. Read, Allen D. W., <u>Presentation Skills</u>, pp. 25-29.
8. Analyze a presentation on videotape, relate to rating scale.

VI. Postassessment - See competency instrument

VII. Resources:

1. Videotape "Teaching & Interactive Skills" - clip II.
2. Faculty and staff.
3. See master reading list posted in Departmental Curriculum Library for current selected readings.
4. Allen, D. W., <u>Teaching Skills: Presentation Skills</u> (manual), pp. 25-29.

PRESENTATION RATING SCALE

Student's Name:
Critiqued by: Date:

I. Presentation Skills	Yes	No	Don't Know
1. Was topic introduced clearly & without ambiguity?			
2. Did presentation fit age level of students?			
3. Did topic elicit the response from the pupils?			
4. Was "teacher's" voice clear?			
5. Did teacher mispronounce words? What words? ___ ___ ___ ___ ___ ___ ___			
6. Was interest of students held during presentation as revealed by non-verbal behavior?			
7. Did the presentation establish readiness for topic?			
8. Was there a variety of materials, (i.e., posters, chalkboard, overlays, displays, models or mock-ups, "graphies," etc.) used in presentation			
9. Was there a summarization at the end of presentation?			
10. Did the teacher exhibit any peculiar mannerisms during presentation? If so, what were they? _____ _____			
11. Was the tone conversational?			
12. Was the topic contemporary?			
13. Was the presentation concrete?			

I.   Title: Teaching and Interactive Skills: Reinforcement

II. Behavioral Objective:

In a simulated or actual classroom situation, the preservice
teacher will utilize during a ten minute presentation at least
five positive verbal reinforcement techniques and at least five
positive non-verbal techniques.

III. Purpose:

Research has shown that teachers who reinforce students for
contributing to class discussions draw more participation from
their students. Classroom participation in turn usually in-
creases student learning. A competent teacher should be able
to utilize various positive reinforcement techniques (both verbal
and non-verbal) in their teaching.

IV. Preassessment

Same as behavioral objective.

V.   Learning Alternatives:

1. View videotape Teaching & Interactive Skills, Clip I and
    Clip IV on file in Departmental Videotape Library.
2. Attend scheduled seminar on Reinforcement.
3. Schedule visit to public school classroom to observe and
    identify positive verbal and nonverbal reinforcement tech-
    niques used by classroom teachers.
4. Schedule practice sessions on reinforcement techniques - alone
    working with audio or videotape: with small group of peers
    or school aged children.
5. Read selected available material on file in Departmental
    Curriculum Library.
6. Free Choice
7. Read, Allen, D. W., Increasing Student Participation,
    pp. 5-11.

VI. Postassessment - see competency instrument.

VII. Resources

1. Videotape "Teaching and Interactive Skills" Clip I and
    Clip IV.
2. Faculty and staff.
3. See master reading list posted in Departmental Curriculum
    Library for current related readings.
4. Allen, Dwight W., Reinforcement: Increasing Student Partici-
    pation (Teacher's Manual) pp. 5-11.

I.   Title Teaching and Interactive Skills: Repetition

II. Behavioral Objective:

     During a ten minute simulated or classroom lesson presenta-
tion to a group of at least five students the preservice teacher
will elicit responses from the pupils that repeat important
content points at least three times. Criterion level specifies
that each pupil give at least two responses and that the teacher
records these responses on the chalkboard.

III. Purpose:

     Students will retain material if they are exposed to it
several times through the principle of "Overlearning." Thus
a teacher, by using repetition can provide for this overlearning
by students as well as focusing or highlighting important
contents points by this means.

IV. Preassessment:

     Same as Behavioral Objective.

 V. Learning Alternatives:

     1. View videotape "Teaching & Interactive Skills" Clip II.
     2. Attend scheduled seminar on Repetition.
     3. Schedule practice session on using repetition during lesson
         presentation with small group of peers.
     4. Read selected available material on file in Departmental
         Curriculum Library.
     5. Free Choice.
     6. Read Allen, D. W., Presentation Skills, pp. 52-57.

VI. Postassessment - See competency instrument.

VII. Resources:

     1. Videotape "Teaching & Interactive Skills" - Clip II.
     2. Faculty and Staff.
     3. See master reading list posted in Departmental Curriculum
         Library for current available related reading.
     4. Allen, D. W., Teaching Skills: Presentation Skills (manual)
         pp. 52-57.

  I. Title: Interactive Skills: Acceptance of Ideas and Feelings
              of Pupils

 II. Behavioral Objective:

     Given a group of five pupils in a real or simulated classroom
who express negative or positive ideas, or feelings, the

preservice teacher will accept the ideas and feelings and proceed
to utilize the ideas of the pupils as a part of the lesson. If
the pupils' feelings are of a negative nature either verbal or
nonverbal, the teacher will accept the feeling and begin to move
the feelings from negative to positive. The pupil that expresses
the negative feelings must be drawn into participation by the
use of questioning skills and make three positive responses after
the teacher has accepted the negative feelings. The three
positive responses must be reinforced.

III. Purpose:

   Pupils frequently express positive and negative ideas and
feelings. Effective teachers must be able to accept the ideas
and feelings and move the pupil into participation through the
skillful use of questioning techniques. In order to gradually
increase student participation, it is important that positive
responses of the pupils be reinforced.

IV. Preassessment

   Same as Behavioral Objective

V. Learning Alternatives

   1. Select materials on behavior modification in the curriculum
      library.
   2. View Film Clips 1 and III, Teaching and Interactive Skills.
   3. Make a short videotape using your peers as simulated students
      making negative statements. Practice accepting the statements
      and moving the statements from negative to positive without
      correcting the pupil.
   4. Ask for a faculty seminar on behavior modification.
   5. Free Choice.

VI. Postassessment: See competency instrument.

VII. Resources:

   1. Videotapes Clips I and III, Teaching and Interactive Skills.
   2. See master reading list posted in Departmental Curriculum
      Library for current related readings.
   3. Faculty and staff.

   I. Title: Teaching and Interactive Skills: Divergent Questions

   II. Behavioral Objective:

      Given a group of at least five students (peers or public
   school pupils) in a simulated or real classroom microteaching

situation, the preservice teacher will ask three divergent questions in a ten minute teaching session about a given topic. This skill will be demonstrated by three of the five students being able to (1) respond to the question "If you were in such and such a situation, how would you . . .? (2) respond creatively to a specific question, and (3) elicit at least 2 responses from each of three pupils. The teacher should avoid the asking of convergent questions after a given divergent response has been supplied by a pupil.

III. Purpose:

In order to develop every student's ability to its fullest level, the teacher must stimulate creative thinking. Divergent questions will help develop openness and original, creative thinking.

IV. Preassessment:

Same as Behavioral Objective.

V. Learning Alternatives:

1. View videotape "Teaching & Interactive Skills," Clip I and Clip IV, on file in Departmental Videotape Library.
2. Attend scheduled seminar on Divergent Questions.
3. Schedule visit to public school classroom to observe and identify divergent questioning skills used by classroom teachers.
4. Schedule practice session on using divergent questions (alone with media available--audio or videotape; with small group of peers or school aged children).
5. Read selected available material on file in Departmental Curriculum Library.
6. Free Choice.
7. Read, Allen, D. W., Questioning Skills, pp. 5-11; 19-23; 38-43; 58-59.

VI. Postassessment - See competency instrument.

VII. Resources:

1. Videotape "Teaching and Interactive Skills," Clip I and Clip IV.
2. Faculty and staff.
3. See master reading list posted in Departmental Curriculum Library for current related readings.
4. Allen, Dwight W., Teaching Skills: Questioning, pp. 5-11; 19-23; 38-43; 58-59.

I. Title: Teaching and Interactive Skills: Probing Questions

II. Behavioral Objective:

Gi/en a group of at least five students (peers or public
school pupils) in a simulated or real classroom microteaching
setting, the preservice teacher will demonstrate skill of asking
probing questions that go beyond the superficial "first answer"
of students. The preservice teacher will phrase questions that
probe at least three of the following five areas: (1) asking for
more information, (2) bringing other students into a discussion
in response to the first answer given, (3) requiring a student to
justify his/her response, (4) refocusing attention on a related
issue, and (5) prompting students or giving hints to elicit
responses. An analysis of the teaching situation at 15 second
intervals should indicate more pupil response than teacher response.

III. Purpose:

One of the skills of an effective teacher is the ability to
lead students to deeper thoughts. The teacher should be able to
ask stimulating and/or thought provoking questions which steer
pupils away from superficial or simple answers. When students
are challenged by this type of question, they also learn to do
reflective thinking.

IV. Preassessment:

Same as Behavioral Objective

V. Learning Alternatives:

1. View videotape "Teaching & Interactive Skills," Clip I and
   Clip IV.
2. Attend scheduled seminar on Probing Questions.
3. Schedule small group session with peers to practice asking
   probing questions.
4. Read selected available material on file in Departmental
   Curriculum Library.
5. Free Choice.
6. Read, Allen, D. W., Questioning Skills, Probing (manual),
   pp. 5-11; 19-25; 38-43; 58-59.

VI. Postassessment - See competency instrument.

VII. Resources:

1. Videotape "Teaching and Interactive Skills," Clip I and
   Clip IV.
2. Allen, D. W., Technical Skills: Questioning? Probing
   (manual), pp. 5-11; 19-25; 38-43; 58-59.
3. Faculty and staff.
4. See master reading list posted in Departmental Curriculum
   Library for current related reading.

I.   Title: Teaching and Interactive Skills: Higher Order Questions

II. Behavioral Objective:

Given a group of at least five students (peers or public
school pupils), in a simulated or real classroom microteaching
situation, the preservice teacher will ask at least three higher
order questions during a ten minute lesson segment. This skill
will be evidenced by pupils (1) draw conclusions, (2) make
applications, (3) analyzing, or (4) evaluating. The analyzation
will show at least twice as much pupil talk as teacher talk on a
fifteen second interval time line.

III. Purpose:

The development of human potential in cognitive thought has
become a major aim in education in the late twentieth century.
To aid students in developing thinking skills on the cognitive
levels above the mere recalling of facts, effective teaching
might utilize competency in questioning to lead students to
higher levels of thought. Concomitant with the teacher's posing
higher level questions should be the student's growing awareness
of the level of his responses. It may well be that if the learner
becomes aware of the objectives at this point, he will more
actively become a participant in the process of developing himself
in thinking in higher levels.

IV. Preassessment:

Same as behavioral objective.

V.   Learning Alternatives:

1. View videotape segments - Clip I and Clip IV, "Teaching and
    Interactive Skills." These clips are on file in the
    departmental tape library.
2. Attend scheduled seminars conducted by faculty.
3. Arrange a group session in which higher order questioning
    is studied and demonstrated.
4. Schedule visit to public school classroom to observe and
    identify higher order questions as used by classroom teachers.
5. Schedule practice sessions (along, with small group of peers,
    or with group of school age children).
6. Read selected available material on file in Curriculum Library.
7. Read, Allen D. W., Technical Skills: Questioning, pp. 5-11.
8. Free Choice.

VI. Postassessment - See competency instrument.

VII. Resources:

1. Videotape Clip I and Clip IV of Teaching and Interactive
    Skills.

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2. Allen, D. W., "A New Design for Teacher Education," <u>Journal of Teacher Education</u>, 17:296-300, 1966.
3. See master reading list posted in Curriculum Library for current related readings.
4. Allen, D. W., <u>Technical Skills: Questioning</u>.

I. Title: Teaching and Inactive Skills: Variety in Presentation

II. Behavioral Objective:

   Given a group of at least five students (peers or public school pupils), in three separate 10 minute microteaching lessons utilizing simulated or real classroom situations, the preservice teacher will use at least six different behavioral patterns in presenting material to the group. These may be used in any number or combination for each session. They should include gestures, focusing, interactive styles, pauses, shifting sensory channels, and movements. They will involve posters, pictures, overlays, graphics, displays, etc. The presentation should be conversational, contemporary, concrete and creative.

III. Purpose:

   To build an awareness of the variety of attention-producing behaviors that can be incorporated into teaching situations. Six simple behaviors or behavioral patterns will be studied and practiced. Each student may devise additional stimulus varying behaviors suited to their particular teaching style and subject.

IV. Preassessment:

   Same as behavioral objective.

V. Learning Alternatives:

1. View videotape segments - Clip I and Clip II, <u>Teaching and Interactive Skills</u>. These clips are on file in the departmental tape library.
2. Attend scheduled seminars conducted by the faculty.
3. Read selected materials on file in the Departmental Curriculum Library.
4. Schedule visit to public school classroom to observe and identify varying styles of presentations by classroom teachers.
5. Practice alone on behavioral patterns to be used.
6. Work with peers in small groups, each member practicing various behavioral patterns.
7. Free Choice.
8. Read, Allen, D. W., <u>Creating Student Involvement</u>, pp. 22-27.

VI. Postassessment - See competency instrument.

VII. Resources:

1. Videotapes, Clip I and Clip II of <u>Teaching and Interactive</u>
    <u>Skills</u>.
2. Allen, D. W., <u>Teaching Skills: Creating Student Involvement</u>,
    pp. 22-27.
3. See master reading list posted in Curriculum Library for
    current related readings.

I. Title: Teaching and Interactive Skills: Awareness Skills

II. Behavioral Objective:

Given a group of at least five students (peer or public
school pupils), in a simulated or real classroom situation, the
preservice teacher will present a ten lesson segment. During
this segment he will recognize all students who are showing
little or no attention and bring them to active participation by
utilizing positive corrective measures. Positive measures are
defined as varying stimuli speaking directly, through eye contact,
involving students, using students interests. The preservice
teacher will identify and alleviate distractive elements in the
analysis in the preassessment.

III. Purpose:

Awareness of student behavior and distractive elements of a
classroom is a skill designed to alert the teacher to what is going
on in his classroom by training him to observe the cues his
students present. By observing facial expressions, body postures
and movements, etc., the teacher can tell a great deal about his
students' interest level and attention span. From these cues
the teacher can make judgments about whether to continue the
activity, change it, or use a different mode of instruction.
Developing awareness of pupil behavior is a prerequisite for almost
any kind of classroom decision.

IV. Preassessment:

1. Same as behavioral objective.
2. The preservice teacher will view the videotape of his pre-
    sentation with a faculty member. During this session he will
    identify orally all pupils who were showing little or no
    attention and point out the corrective measures. He will
    identify all distractive elements and explain his alleviating
    actions.

V. Learning Alternatives:

1. View Videotape Clip II, Teaching and Interactive Skills.
2. Attend scheduled seminars conducted by faculty.
3. Schedule visit to public school classroom to practice aware-
   ness skills. Confer with classroom teacher.
4. Practice during informal, small group conversations.
5. Read selected materials on file in Curriculum Library.
6. Free Choice.
7. Read Allen D. W., "Recognizing Attending Behavior," Increas-
   ing Student Participation, pp. 27-32.

VI. Postassessment - See competency instrument.

VII. Resources:

1. Videotape Clip II, Teaching and Interactive Skills.
2. See master reading list posted in Curriculum Library.
3. Allen, D. W., "Recognizing Attending Behavior," Increasing
   Student Participation: Teacher's Manual, pp. 27-32.

I. Title: Teaching and Interactive Skills: Prompting

II. Behavioral Objective:

Given a group of at least five students (peers or public
school pupils), in a simulated or real classroom situation, the
preservice teacher will use at least three different prompting
or "cueing" skills during a ten minute lesson segment. The
effectiveness of the prompt or "cue" will be evidenced by at
least three appropriate responses by the pupils. Appropriate
response is defined as a response by the pupil which is intrin-
sically reinforcing.

III. Purpose:

Prompting is designed to give the teacher more control over
the success a student has in making a comment. The teacher's
use of prompts or "cues" can greatly increase the student's
chances of making a worthwhile contribution to the class and
therefore increase the probability that the student will take
the initiative to contribute to a discussion.

IV. Preassessment:

Same as behavioral objective.

V. Learning Alternatives:

1. View videotape Clip IV, and Teaching and Interactive Skills.

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2. Attend scheduled seminars conducted by faculty.
3. Practice during informal, small group conversations.
4. Read selected materials on file in Curriculum Library.
5. Free Choice.
6. Read Allen, D. W., "Cueing," Increasing Student Participation, pp. 50-55.

VI. Post-Assessment: See competency instrument.

VII. Resources:

1. Videotape Clip IV, Teaching and Interactive Skills.
2. See master reading list posted in Curriculum Library.
3. Allen D. W., "Cueing," Increasing Student Participation: Teacher's Manual, pp. 50-55.

I. Title: Teaching and Interactive Skills: Use of Examples

II. Behavioral Objective:

Given a group of at least five students (peers or public school pupils), in a simulated or real classroom microteaching situation, the preservice teacher will use at least three examples to illustrate, clarify, or substantiate a single idea during a ten minute lesson segment. The sequence must start with a simple or concrete example, the preservice teacher will relate the example to the principle or idea being taught, and ask the student to give other examples that illustrate the point.

III. Purpose:

The use of example is basic to good, sound, effective teaching. Good examples enable students to grasp concepts. The two basic approaches to examples are deductive and inductive. Therefore, the use of examples both clarifies the concept at hand and provide bases for higher order examination or exploration.

IV. Preassessment:

Same as behavioral objective.

V. Learning Alternatives:

1. View videotape Clip II, Teaching and Interactive Skills.
2. Attend scheduled seminars conducted by faculty.
3. Observe use of examples and analogies in T.V. presentations, periodicals, newspapers, etc.
4. Schedule practice sessions with peers.
5. Read selected materials on file in the Curriculum Library.
6. Free Choice.
7. Read, Allen, D. W., Presentation Skills, pp. 38-41.

VI. Postassessment - See competency instrument.

VII. Resources:

1. Videotape Clip II, Teaching and Interactive Skills.
2. See master reading list posted in Curriculum Library.
3. Allen, D. W., Teaching Skills: Presentation Skills, pp. 38-41.

I. Title: Teaching and Interactive Skills: Summarization

II. Behavioral Objective:

Given a group of five students (peers or public school pupils) the preservice teacher in each of three simulated or actual classroom situations will elicit responses from the pupils to summarize the main points of the presentation. This summarization will occur in the last two minutes of a lesson. The teacher will use questioning skills to elicit summarization. This summarization will include two of the following: review of presented content, questions to serve as continuation points for the next presentation, review questions on presented content, making a pupil assignment. The analyzation of the interaction should show more pupil participation than teacher talk on 15 second tallies of the last two minute session.

III. Purpose:

Summarization pulls together the main points of a presentattion and links new information with known information for the student. It is usually the conclusion of a teacher made presentation which allows a student to begin to assimilate its content.

IV. Preassessment:

Same as behavioral objective.

V. Learning Alternatives:

1. View videotape Teaching and Interactive Skills, Clip I and Clip II on file in Departmental Videotape Library.
2. Attend scheduled seminar on "Summarization."
3. Schedule visit to classroom (either University or public school) to observe and identify ways teachers utilize summarization skills.
4. Schedule sessions to practice summarizing lesson presentation to small group of peers.
5. Read selected available material on file in Departmental Curriculum Library.
6. Free Choice.
7. Read; Allen, D. W., Creating Student Involvement, pp. 40-45.

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VI.   Postassessment - See competency instrument.

VII. Resources:

1.   Videotape Teaching and Interactive Skills, Clip I and II.
2.   See master reading list posted in Departmental Curriculum
     Library for current related readings.
3.   Faculty and staff.
4.   Allen D. W., Teaching Skills: Creating Student Involvement:
     Closure (Manual), pp. 40-45.

I.   Title: Teaching and Interactive Skills: Silence

II. Behavioral Objective:

     In a simulated or actual classroom setting with five pupils,
the preservice teacher, will, in a ten minute lesson, utilize at
least two pauses (or silent times) in the presentation. The
pauses will feature non-verbal behavior on the part of the
teacher and will elicit responses by the pupils during the pauses.
The analysis of the interaction during the pauses should show only
reinforcements by the teacher. A pause is defined as a statement
by the teacher that is followed by "wait-time," that is followed
by a series of student responses. Short verbal reinforcement is
not counted as disturbing to the pause.

III. Purpose:

     Silence and nonverbal cues allow the teacher to direct class-
activities without doing excessive talking. They are both powerful
means of teacher-pupil interaction.

IV. Preassessment:

     Same as behavioral objective.

V.   Learning Alternatives:

1.   View videotape Teaching and Interactive Skills, Clip III on
     file in Departmental Videotape Library.
2.   Attend scheduled seminar on "Use of Silence."
3.   Schedule practice sessions with small group of peers or
     school age children to review lesson presentation.
4.   Read selected available material on file in Departmental
     Curriculum Library.
5.   Free Choice.
6.   Read, Allen, D. W., Increasing Student Participation, pp. 34-41.

VI. Postassessment - See competency instrument.

VII. Resources:

1. Videotape <u>Teaching and Interactive Skills</u>, Clip III.
2. Faculty and staff.
3. See master reading list posted in Departmental Curriculum Library for current related readings.
4. Allen, D. W., "Silence and Nonverbal Cues," in <u>Increasing Student Participation</u>: Teacher's Manual, pp. 34-41.

APPENDIX G

FORM FOR THE ANALYSIS OF AUDIO-TAPES

Criterion Level for Each Competency
(3 Lesson Segments of 10 Minutes Each)

	Did the Student Reach Criterion Level?		Information for Normative Analysis
	Yes	No	How Many
1. Establishing Readiness (3 of 5 pupils motivated)	___	___	_____
2. Presentation (See score sheet in modules)	___	___	_____
3. Reinforcement (10 verbal)	___	___	_____
4. Repetition (10 pupil responses)	___	___	_____
5. Questioning Skills (Divergent, Probing, Higher Order--9 Questions--2 responses from each of 3 pupils)	___	___	_____
6. Variety in Presentation (Use of at least three different media)	___	___	_____
7. Prompting (3 pupil responses)	___	___	_____
8. Use of examples (3)	___	___	_____
9. Summarization	___	___	_____

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<u>Analysis of Teacher Talk and Pupil Talk</u>

<u>Categories</u>

1. Teacher Talk
    Code
    (1) Teacher Initiated Talk
    (2) Teacher Response

2. Pupil Talk
    Code ✓
    (1) Pupil Initiated Talk
    (2) Pupil Response

3. Silence (Code ✓)

5 second intervals

Teacher Initiated	✓						✓								
Teacher Response		✓													
Pupil Initiated		✓		✓											
Pupil Response			✓		✓										
Silence															

10 minute microteaching session

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